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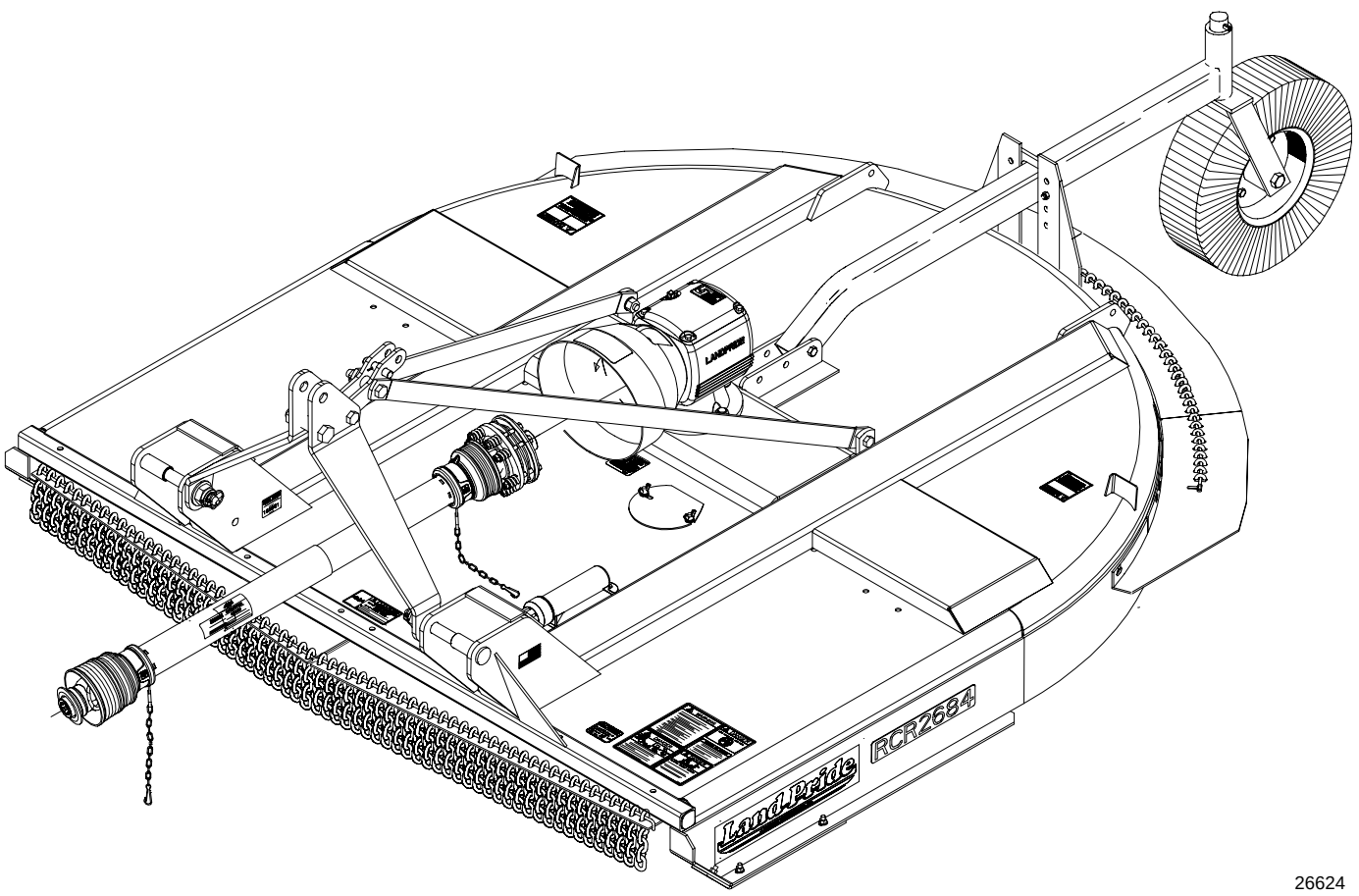
Rotary Cutter

RCR2684



26624

312-785M
Operator's Manual

Land Pride

Read the Operator's manual entirely. When you see this symbol, the subsequent instructions and warnings are serious - follow without exception. Your life and the lives of others depend on it!

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Cover photo may show optional equipment not supplied with standard unit.

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Printed in the United States of America.

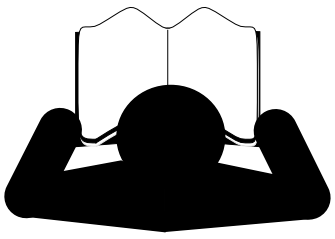
These are common practices that may or may not be applicable to the products described in this manual.

Safety at All Times

Thoroughly read and understand the instructions given in this manual before operation. Refer to the "Safety Label" section, read all instructions noted on them.

Do not allow anyone to operate this equipment who has not fully read and comprehended this manual and who has not been properly trained in the safe operation of the equipment.

- ▲ Operator should be familiar with all functions of the unit.
- ▲ Operate implement from the driver's seat only.
- ▲ Make sure all guards and shields are in place and secured before operating the implement.
- ▲ Do not leave tractor or implement unattended with engine running.
- ▲ Dismounting from a moving tractor could cause serious injury or death.
- ▲ Do not stand between the tractor and implement during hitching.
- ▲ Keep hands, feet, and clothing away from power-driven parts.
- ▲ Wear snug fitting clothing to avoid entanglement with moving parts.
- ▲ Watch out for wires, trees, etc., when raising implement. Make sure all persons are clear of working area.
- ▲ Turning tractor too tight may cause implement to ride up on wheels. This could result in injury or equipment damage.



Look For The Safety Alert Symbol

The SAFETY ALERT SYMBOL indicates there is a potential hazard to personal safety involved and extra safety precaution must be taken. When you see this symbol, be alert and carefully read the message that follows it. In addition to design and configuration of equipment, hazard control and accident prevention are dependent upon the awareness, concern, prudence and proper training of personnel involved in the operation, transport, maintenance and storage of equipment.

Be Aware of Signal Words

A Signal word designates a degree or level of hazard seriousness. The signal words are:

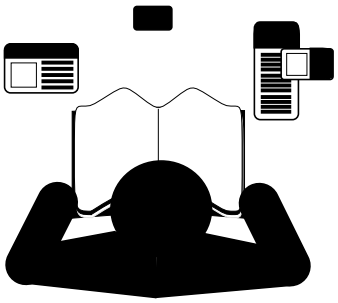
DANGER
Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury. This signal word is limited to the most extreme situations, typically for machine components that, for functional purposes, cannot be guarded.

WARNING
Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury, and includes hazards that are exposed when guards are removed. It may also be used to alert against unsafe practices.

CAUTION
Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

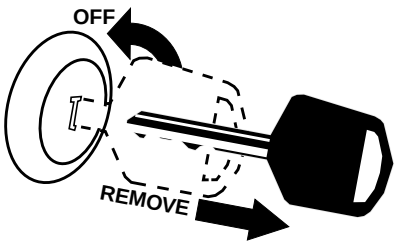
For Your Protection

- ▲ Thoroughly read and understand the "Safety Label" section, read all instructions noted on them.



Shutdown and Storage

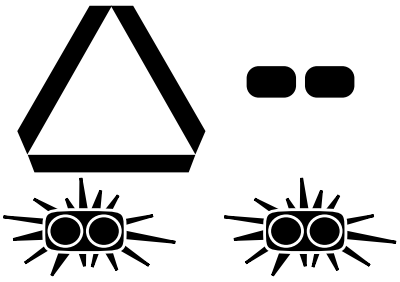
- ▲ Lower machine to ground, put tractor in park, turn off engine, and remove the key.
- ▲ Detach and store implements in a area where children normally do not play. Secure implement by using blocks and supports.



These are common practices that may or may not be applicable to the products described in this manual.

Use Safety Lights and Devices

- ▲ Slow moving tractors, self-propelled equipment, and towed implements can create a hazard when driven on public roads. They are difficult to see, especially at night.
- ▲ Flashing warning lights and turn signals are recommended whenever driving on public roads. Use lights and devices provided with implement.

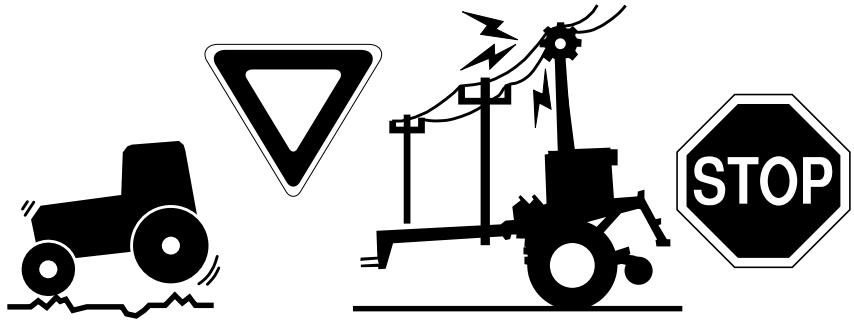


Transport Machinery Safely

- ▲ Comply with state and local laws.
- ▲ Maximum transport speed for implement is 20 mph. DO NOT EXCEED. Never travel at a speed which does not allow adequate control of steering and stopping. Some rough terrain require a slower speed.
- ▲ Sudden braking can cause a towed load to swerve and upset. Reduce speed if towed load is not equipped with brakes.
- ▲ Use the following maximum speed - tow load weight ratios as a guideline:

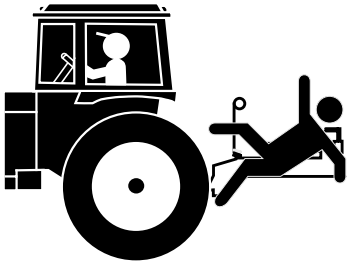
  20 mph when weight is less than or equal to the weight of tractor.

  10 mph when weight is double the weight of tractor.
- ▲ **IMPORTANT:** Do not tow a load that is more than double the weight of tractor.



Keep Riders Off Machinery

- ▲ Riders obstruct the operator's view, they could be struck by foreign objects or thrown from the machine.
- ▲ Never allow children to operate equipment.

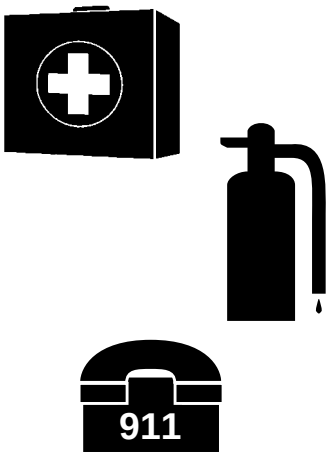


Practice Safe Maintenance

- ▲ Understand procedure before doing work. Use proper tools and equipment, refer to Operator's Manual for additional information.
- ▲ Work in a clean dry area.
- ▲ Lower the cutter to the ground, put tractor in park, turn off engine, and remove key before preforming maintenance.
- ▲ Do not grease or oil cutter while it is in operation.
- ▲ Inspect all parts. Make sure parts are in good condition & installed properly.
- ▲ Remove buildup of grease, oil or debris.
- ▲ Remove all tools and unused pars from the cutter before operation.

Prepare for Emergencies

- ▲ Be prepared if a fire starts.
- ▲ Keep a first aid kit and fire extinguisher handy.
- ▲ Keep emergency numbers for doctor, ambulance, hospital and fire department near phone.



Wear Protective Equipment

- ▲ Protective clothing and equipment should be worn.
- ▲ Wear clothing and equipment appropriate for the job. Avoid loose fitting clothing.
- ▲ Prolonged exposure to loud noise can cause hearing impairment or hearing loss. Wear suitable hearing protection such as earmuffs or earplugs.
- ▲ Operating equipment safely requires the full attention of the operator. Avoid wearing radio headphones while operating machinery.

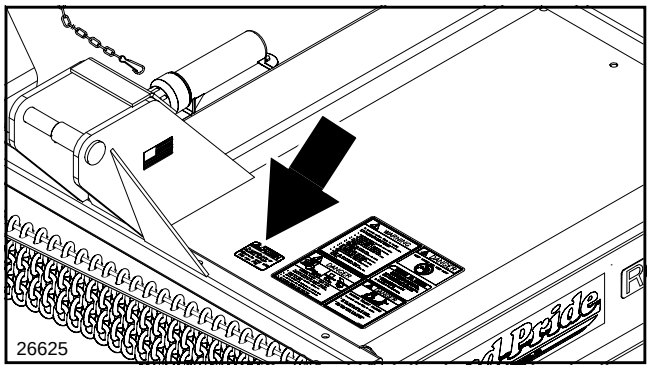
Avoid High Pressure Fluids Hazard

- ▲ Escaping fluid under pressure can penetrate the skin causing serious injury.
- ▲ Avoid the hazard by relieving pressure before disconnecting hydraulic lines or performing work on the system.
- ▲ Make sure all hydraulic fluid connections are tight and all hydraulic hoses and lines are in good condition before applying pressure to the system.
- ▲ Use a piece of paper or cardboard, NOT BODY PARTS, to check for suspected leaks.
- ▲ Wear protective gloves and safety glasses or goggles when working with hydraulic systems.
- ▲ If an accident occurs, see a doctor immediately. Any fluid injected into the skin must be treated within a few hours or gangrene may result.

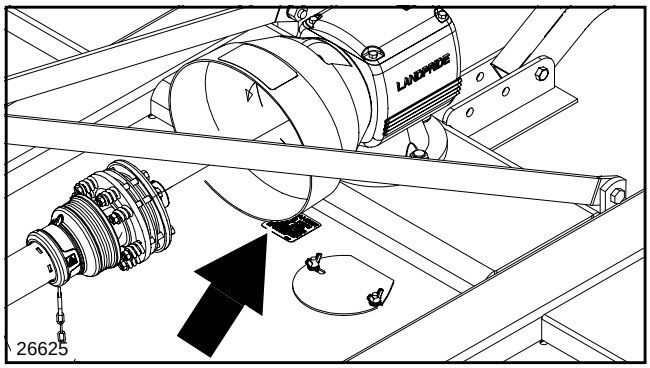
Safety Labels

Your Rotary Cutter comes equipped with all safety labels in place. They were designed to help you safely operate your implement. Read and follow their directions.

1. *Keep all safety labels clean and legible.*
2. *Replace all damaged or missing labels. To order new labels go to your nearest Land Pride dealer.*
3. *Some new equipment installed during repair requires safety labels to be affixed to the replaced component as specified by Land Pride. When ordering new components make sure the correct safety labels are included in the request.*
4. *Refer to this section for proper label placement. To install new labels:*
   a. *Clean the area the label is to be placed.*
   b. *Spray soapy water on the surface where the label is to be placed.*
   c. *Peel backing from label. Press firmly onto the surface.*
   d. *Squeeze out air bubbles with the edge of a credit card.*

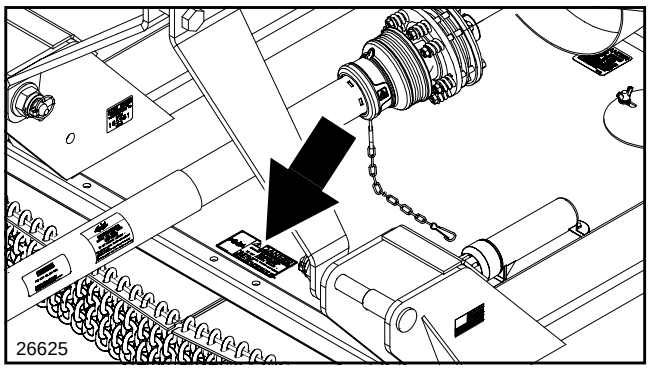


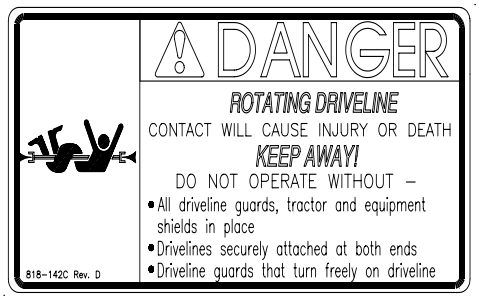
818-130C
Caution:
540 RPM



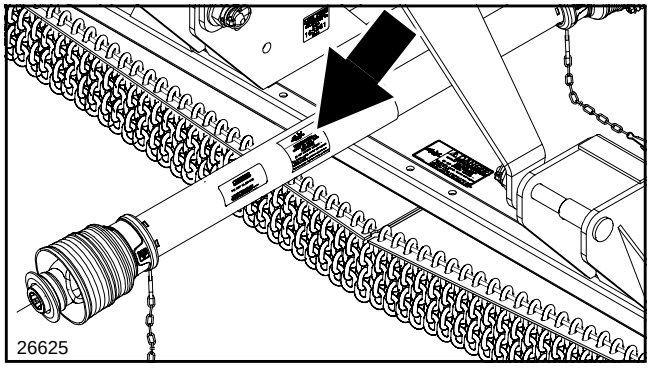
DANGER
GUARD MISSING
When this is visible
DO NOT OPERATE
ENTANGLEMENT HAZARD
can cause Serious Injury or Death
Si no entiende ingles, se prefiere que busque a alquien que interprete las instrucciones para usted.
PHDC 6

818-543C
Danger:
PTO Guard Missing



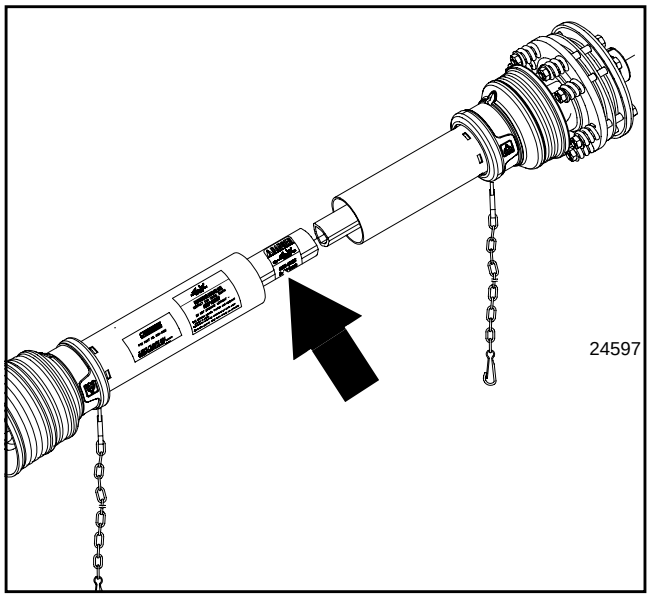

DANGER
ROTATING DRIVELINE
CONTACT WILL CAUSE INJURY OR DEATH
KEEP AWAY!
DO NOT OPERATE WITHOUT –
• All driveline guards, tractor and equipment shields in place
• Drivelines securely attached at both ends
• Driveline guards that turn freely on driveline
818-142C Rev. D

818-142C
Danger: PTO Driveline

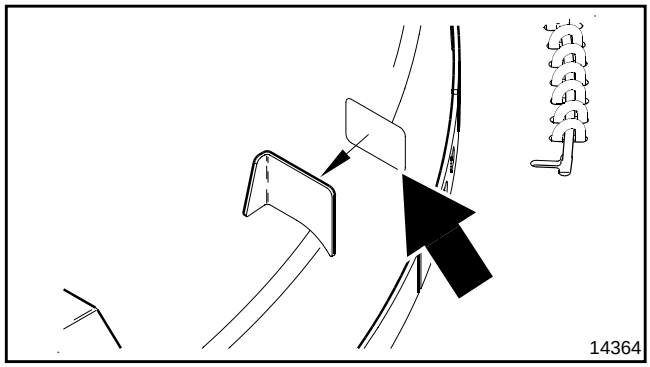


DANGER
ROTATING DRIVELINE
CONTACT CAN CAUSE DEATH
KEEP AWAY!
DO NOT OPERATE WITHOUT –
• All driveline guards, tractor and equipment shields in place
• Drivelines securely attached at both ends.
• Driveline guards that turn freely on Driveline
818-552C

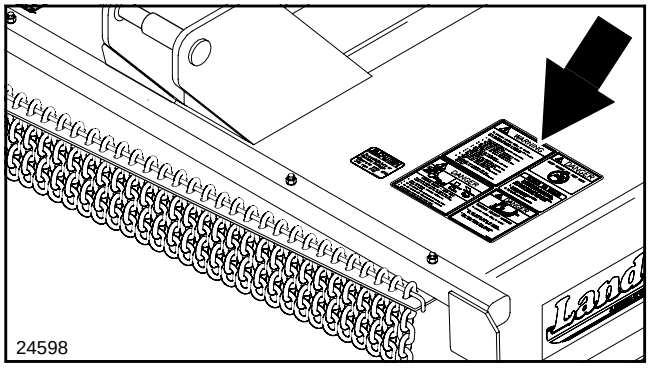
818-540C
Danger: Guard Missing

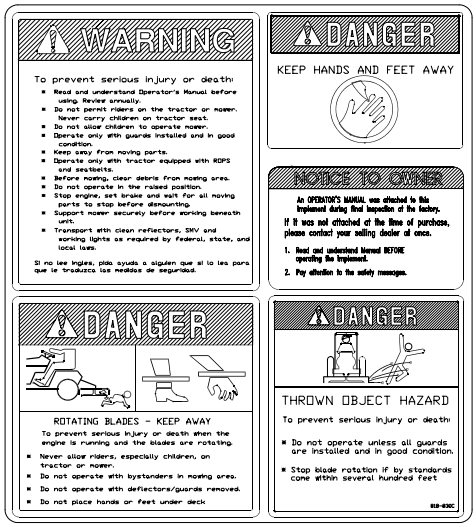


818-540C
Danger: Guard Missing

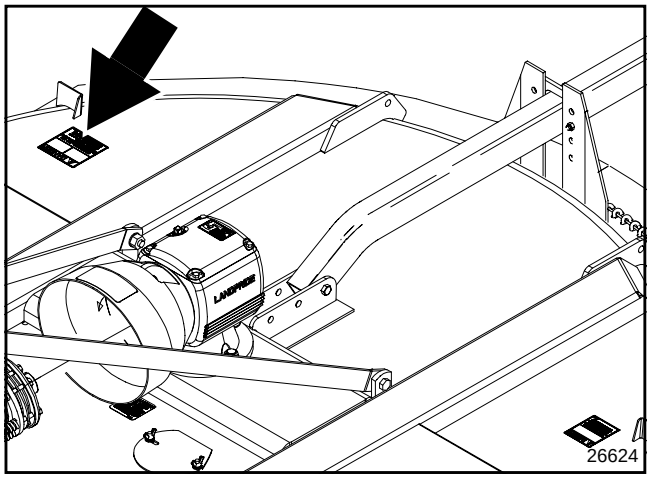


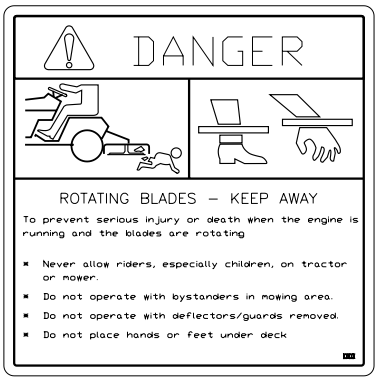
818-230C
Red Reflector



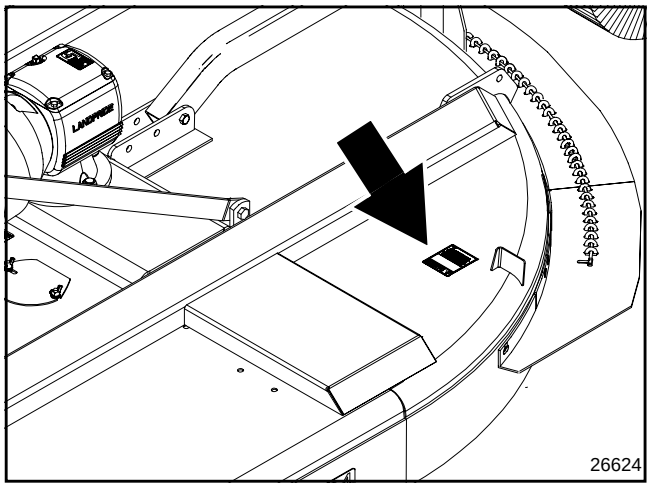

WARNING
To prevent serious injury or death:
Read and understand Operator's Manual before using. Review annually.
Do not permit riders on the tractor or mower. Never carry children on tractor seat.
Do not allow children to operate mower.
Operate only with guards installed and in good condition.
Keep away from moving parts.
Operate only with tractor equipped with ROPS and seatbelts.
Before mowing, clear debris from mowing area.
Do not operate in the raised position.
Stop engine, set brake and wait for all moving parts to stop before dismounting.
Support mower securely before working beneath unit.
Transport with clean reflectors, SMV and working lights as required by federal, state, and local laws.
Si no lee ingles, pida ayuda a alguien que si lo lea para que le traduzca las medidas de seguridad.
DANGER
KEEP HANDS AND FEET AWAY
NOTICE TO OWNER
An OPERATOR'S MANUAL was attached to this implement during final inspection at the factory.
If it was not attached at the time of purchase, please contact your selling dealer at once.
1. Read and understand thereof BEFORE operating the implement.
2. Pay attention to the safety messages.
DANGER
ROTATING BLADES - KEEP AWAY
To prevent serious injury or death when the engine is running and the blades are rotating.
Never allow riders, especially children, on tractor or mower.
Do not operate with bystanders in mowing area.
Do not operate with deflectors/guards removed.
Do not place hands or feet under deck
DANGER
THROWN OBJECT HAZARD
To prevent serious injury or death:
Do not operate unless all guards are installed and in good condition.
Stop blade rotation if by standards come within several hundred feet
818-830C

818-830C
Safety: Combo




DANGER
ROTATING BLADES – KEEP AWAY
To prevent serious injury or death when the engine is running and the blades are rotating
Never allow riders, especially children, on tractor or mower.
Do not operate with bystanders in mowing area.
Do not operate with deflectors/guards removed.
Do not place hands or feet under deck

818-564C
Danger: Rotating Blades - Keep Away



DANGER
THROWN OBJECT HAZARD
To prevent serious injury or death from thrown object:
Operate only with all guards installed and in good condition.
Stop operation if bystanders come within several hundred feet.
818-556C

818-556C
Danger: Thrown Object Hazard

Land Pride welcomes you to the growing family of new product owners.

This Rotary Cutter has been designed with care and built by skilled workers using quality materials. Proper assembly, maintenance, and safe operating practices will help you get years of satisfactory use from the machine.

Application

The medium duty RCR2684 Rotary Cutter is built and designed by Land Pride for cutting on gently sloping or slightly contoured right-of-ways, pastures, set aside acres, and row crop fields. Its 84" cutting width makes it compatible with the more maneuverable and lower 60 to 110 horsepower tractors with 540 rpm PTO and category II or III three point hitches. Also it is Quick-Hitch adaptable. The driveline is protected with a 4 plate slip clutch.

The cutter clears grass, weeds, and light brush up to 2" in diameter and has a cutting height range of 2" to 12" with a cutting blade tip speed of 14,370 fpm. This unit comes with a standard 3/16" x 27" heavy-duty oval stump jumper and replaceable skid shoes. Optional rubber deflectors or chain guard selections are available.

See "Section 6: Specifications & Capacities" on page 29 and "Section 7: Features and Benefits" on page 30 for additional information and performance enhancing options.

Using This Manual

- This Operator's Manual is designed to help familiarize you with safety, assembly, operation, adjustments, troubleshooting, and maintenance. Read this manual and follow the recommendations to help ensure safe and efficient operation.
- The information contained within this manual was current at the time of printing. Some parts may change slightly to assure you of the best performance.
- To order a new Operator's or Parts Manual contact your authorized dealer. Manuals can also be downloaded, free-of-charge from our website at www.landpride.com.

Terminology

"Right" or "Left" as used in this manual is determined by facing the direction the machine will operate while in use unless otherwise stated.

Definitions

NOTE: A special point of information that the operator must be aware of before continuing.

IMPORTANT: A special point of information related to its preceding topic. Land Pride's intention is that this information should be read and noted before continuing.

Owner Assistance

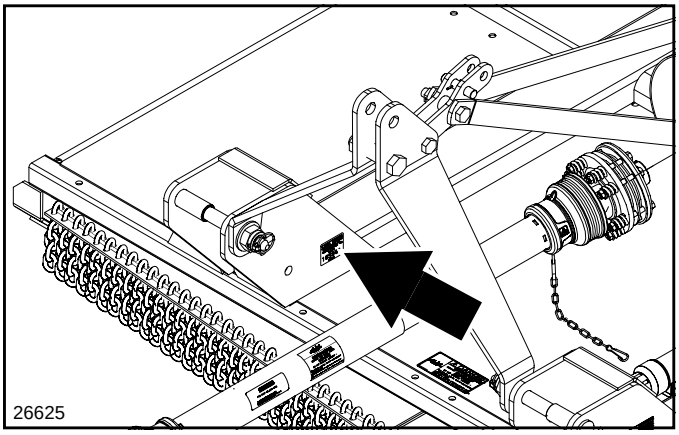
The Warranty Registration card should be filled out by the dealer at the time of purchase. This information is necessary to provide you with quality customer service.

If customer service or repair parts are required contact a Land Pride dealer. A dealer has trained personnel, repair parts and equipment needed to service the Rotary Cutter.

The parts on your Rotary Cutter have been specially designed and should only be replaced with genuine Land Pride parts. Therefore, should your Rotary Cutter require replacement parts go to your Land Pride Dealer.

Serial Number Plate

For prompt service always use the serial number and model number when ordering parts from your Land Pride dealer. Be sure to include your serial and model numbers in correspondence also. Refer to Figure 1 for the location of your serial number plate.



Serial Number Plate Location
Figure 1

Further Assistance

Your dealer wants you to be satisfied with your new Rotary Cutter. If for any reason you do not understand any part of this manual or are not satisfied with the service received, the following actions are suggested:

1. Discuss the matter with your dealership service manager making sure he is aware of any problems you may have and that he has had the opportunity to assist you.
2. If you are still not satisfied, seek out the owner or general manager of the dealership, explain the problem and request assistance.
3. For further assistance write to:

Land Pride Service Department
1525 East North Street
P.O. Box 5060
Salina, Ks. 67402-5060

E-mail address
lpservicedept@landpride.com

Tractor Requirements

Tractor horsepower should be within the range noted below. Tractors outside the horsepower range must not be used.

Horsepower Rating	60-110 HP
Rear PTO Shaft Type	1 3/8”-6 Spline
Rear PTO Speed	540 RPM
Hitch Type	3-Point Cat. II or III
Tractor Weight	See Note Below

NOTE: In order to maintain steering control, ballast may need to be added to your tractor. To determine whether or not to add ballast, refer to your tractor’s operator manual.

Vent Plug With Dipstick Installation

Refer to Figure 1-1:

IMPORTANT: RCR2684 Rotary Cutters are shipped with a solid plug in the gear box to prevent loss of oil during shipping and handling. Before operating the cutter, replace solid plug with a vent plug.

A vent plug with dipstick is included in the bag with this manual. Remove temporary solid plug from top of gearbox and replace with vent plug and dipstick.

Hitch Assembly

NOTE: Do not tighten hardware until assembly is complete. Refer to **“Torque Values Chart for Common Bolt Sizes”** on page 32.

IMPORTANT:

Refer to Figure 1-1 & Figure 1-2:

Bushing (#3), bolt (#6B) & stop pin (#9) are installed in one set of holes for Cat. II set-up (Figure 1-1) and in another set of holes for Cat. III set-up (Figure 1-2 & Figure 1-3). Be sure you know which Category your 3-point hitch is and that your following instructions for your hitch Category.

Refer to Figure 1-1 for Cat. II & Cat. III Hitches:

1. Assembly hitch straps (#4 & #5) to clevis plates with 1 1/4” SAE flat washers (#22) and 1 1/4”-12 top lock nuts (#14).
2. Assemble hitch braces (#1) to rear strap lugs with 5/8"-11 x 1 1/2" bolts (#11), spacers (#2), 5/8” flat washers (#19) and 5/8" lock nuts (#17).

Refer to Figure 1-1 for Cat. II Hitch
And Figures 1-2 & 1-3 for Cat. III Hitch:

3. (See Important note below for Cat. III hook-up.) Insert 1”-8 x 4 1/2” GR5 hex head bolt (#12) through left hand hitch strap (#4), 1 1/4” OD Bushing (#3), right hand hitch strap (#5) and 1” lock washer (#21). Secure with 1”-8 hex nut (#13).

IMPORTANT: Special Cat. III Hook-Up Instructions.

Refer to Figure 1-2:

Bolt (#12) and spacer (#3) is installed in the top hole when attaching the mower to a tractor with a quick hitch set-up.

Refer to Figure 1-3:

Bolt (#12) and spacer (#3) is installed in the bottom hole when attaching the mower to the tractor’s 3-point hitch system.

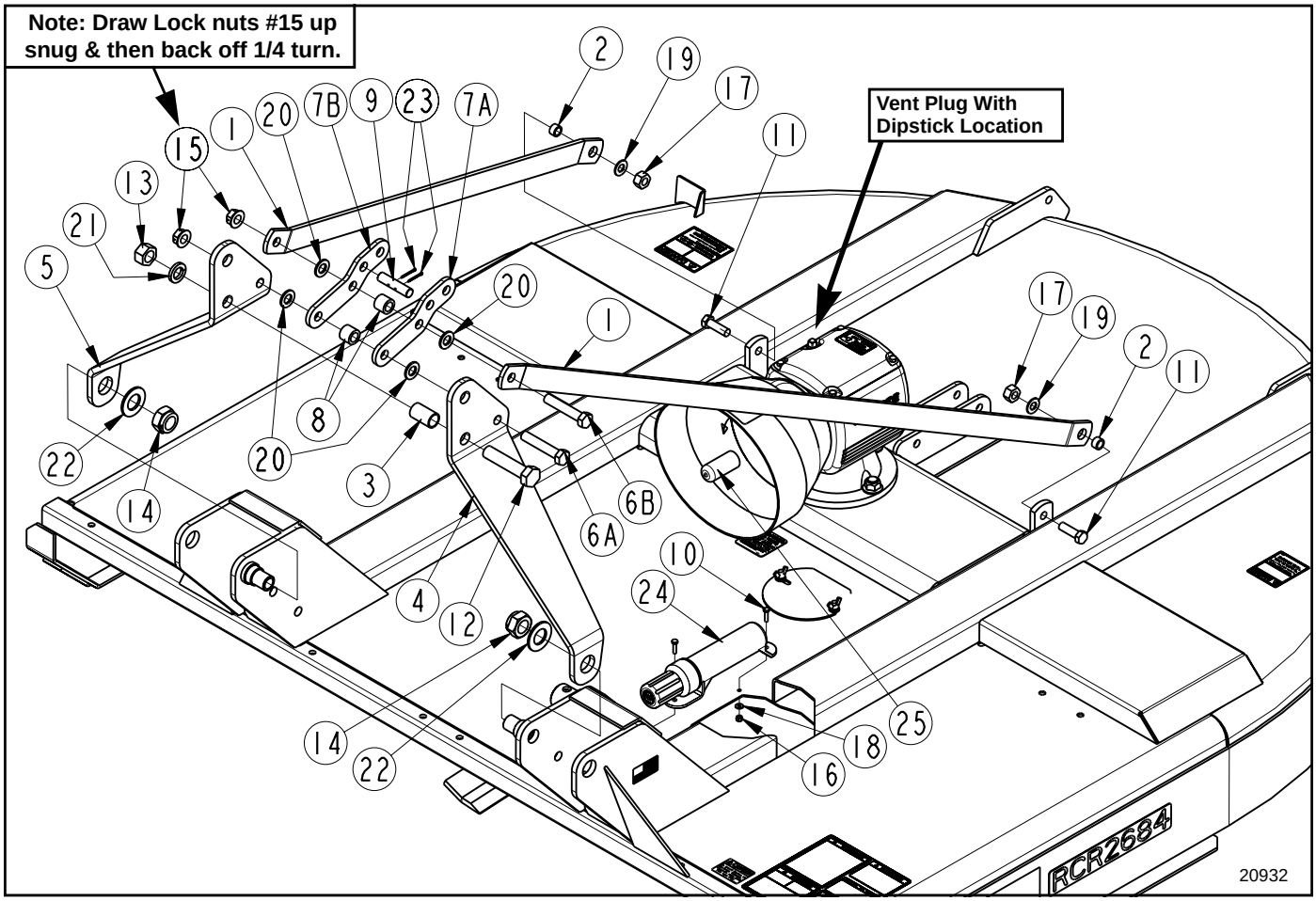
Refer to Figure 1-1 for Cat. II & Cat. III Hitches:

4. Insert 3/4”-10 x 4” GR5 hex head bolt (#6A) through left hand hitch strap (#4), 3/4” flat washer (#20), rear brace hinge (#7A), 1 1/4” OD x 1 1/32” lg spacer (#8), rear brace hinge (#7B), 3/4” flat washer (#20) and right hand hitch strap (#5). Secure with 3/4” hex flange lock nut (#15). **Draw hex flange lock nut (#15) up snug and then back off 1/4 turn**.
5. Insert stop pin (#9) through the two rear brace hinges (#7A & #7B). Secure between the two braces with cotter pins (#23). Bend cotter pins legs to prevent them from falling out.
6. Rotate hitch straps (#4 & #5) and hitch braces (#1) up as shown.
7. Insert 3/4”-10 x 4” GR5 hex head bolt (#6B) through left hitch brace (#1), 3/4” flat washer (#20), left rear brace hinge (#7A), 1 1/4” OD x 1 1/32” lg spacer (#8), right rear brace hinge (#7B), 3/4” flat washer (#20) and right hitch brace (#1). Secure with 3/4” hex flange lock nut (#15). **Draw hex flange lock nut (#15) up snug and then back off 1/4 turn**.
8. Tighten hex nuts (#13, #14 & #17) to the correct torque.

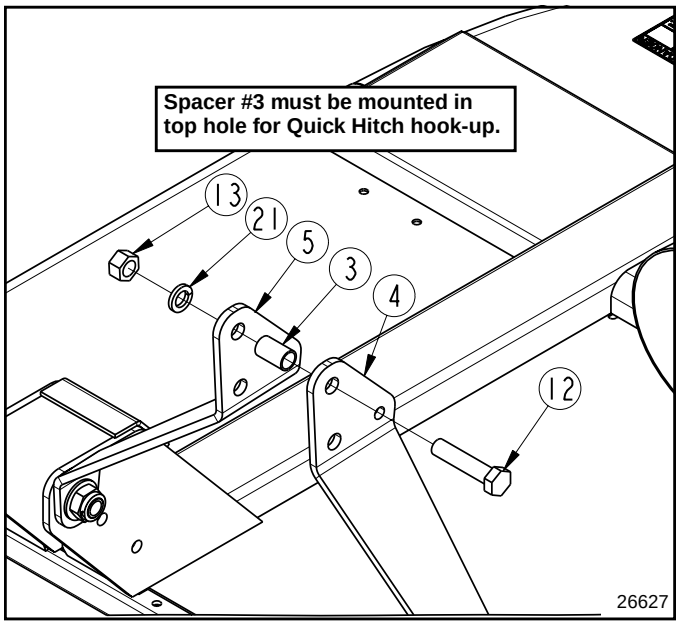
Manual Storage Tube Assembly

Refer to Figure 1-1:

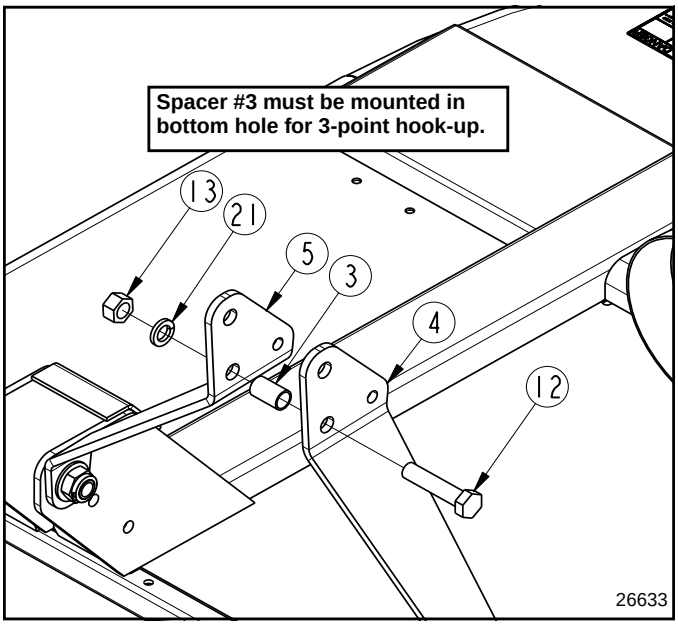
1. Attach manual storage tube (#25) to the cutter deck with two 1/4”-20 GR5 hex head cap screws (#11), flat washers (#19) and hex head nuts (#17). Tighten nuts to the correct torque.



Cat II Hitch Assembly And
Cat III Hitch Assembly Except Spacer (#3) (See Figures 1-2 & 1-3 Below)
Figure 1-1



Assembly Of Spacer (#3) For Cat III Quick Hitch Hook-UP
Figure 1-2

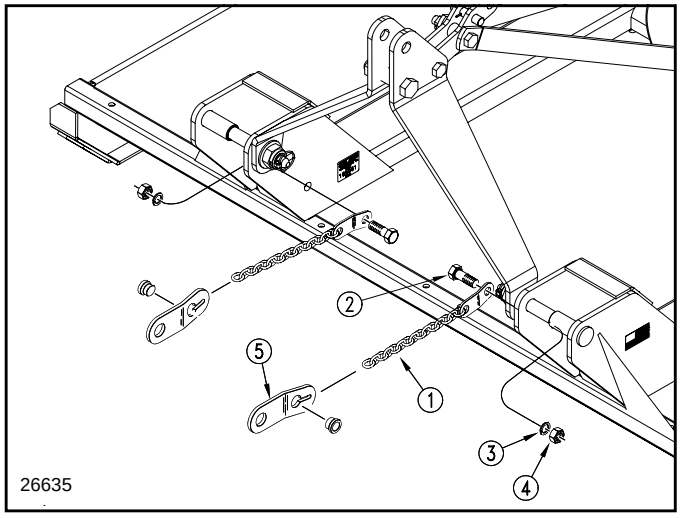


Assembly Of Spacer (#3) For Cat III 3-Point Hitch Hook-UP
Figure 1-3

Check Chain Installation (Optional)

Refer to Figure 1-5:

1. Install lower end of check chain (#1) to inner hitch ear using 3/4”-10 x 1 1/2” GR5 hex head bolts (#2), lock washers (#3) and nuts (#4). Tighten securely.
2. Install chain lugs (#5) on either side of tractor top link mount using 1” Dia. pin for Category II and 1 1/4” for Category III (pin not supplied).
3. Cutting height is then set by placing proper chain link in key slot (#5).



Optional Check Chain Assembly
Figure 1-4

Front and Rear Safety Guard Options

DANGER

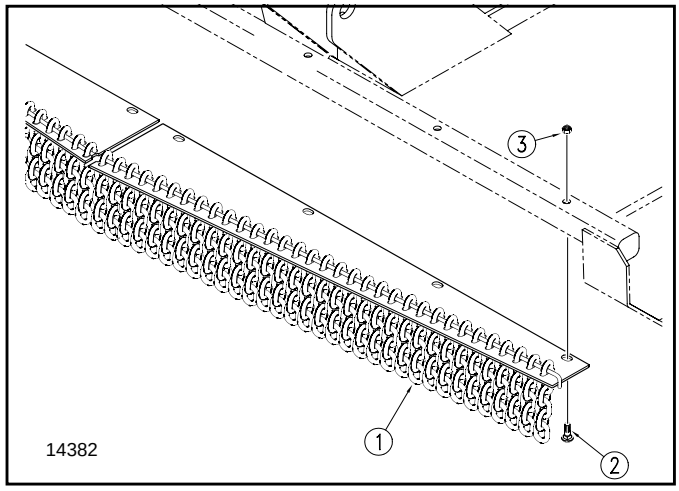
Rotary cutters have the ability to discharge objects at high speeds; therefore, the use of front and rear safety shields is strongly recommended when cutting along highways or in an area where people may be present.

IMPORTANT: Not all objects will be stopped by safety shields. Therefore, Land Pride recommends using extreme caution when cutting in public areas. It is best to operate the Rotary Cutter when no one is around the cutter.

Front Safety Guard

Refer to Figure 1-5:

Install each segment of the front chain or rubber guards (#1) with 1/2” -13 x 2 3/4” GR5 carriage bolts (#2) and lock nuts (#3). Tighten all nuts and bolts to correct torque. See “**Torque Values Chart for Common Bolt Sizes**” on page 32.



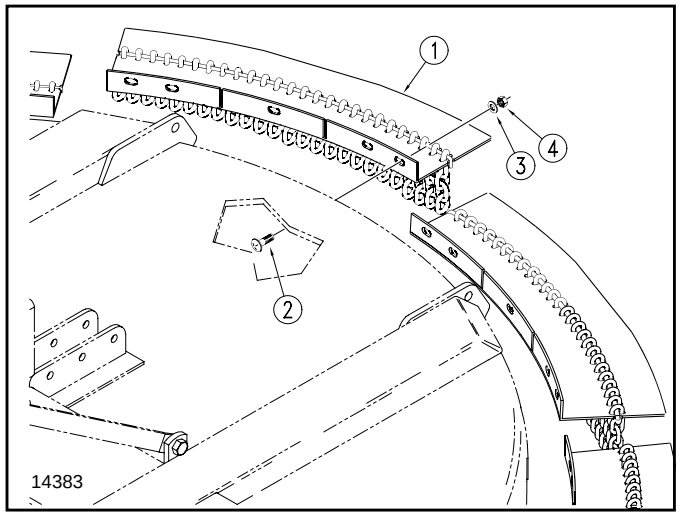
Front Guard (Chain Guard Shown)
Figure 1-5

Rear Chain Guard

IMPORTANT: If used, rear chain guards should be installed before installing tail wheel(s). Guards are sandwiched between the deck and tailwheel adjusting brackets.

Refer to Figure 1-6:

Install each segment of the rear chain guards (#1) as shown with 1/2” -13 x 1 1/2” GR5 carriage bolts (#2), 1/2” flat washers (#3) and 1/2” lock nuts (#4).Tighten all nuts and bolts to correct torque. See “**Torque Values Chart for Common Bolt Sizes**” on page 32.



Rear Chain Guard
Figure 1-6

Single Tailwheel Assembly

IMPORTANT: If chainguards are used, be sure to install them before installing the tail wheel.

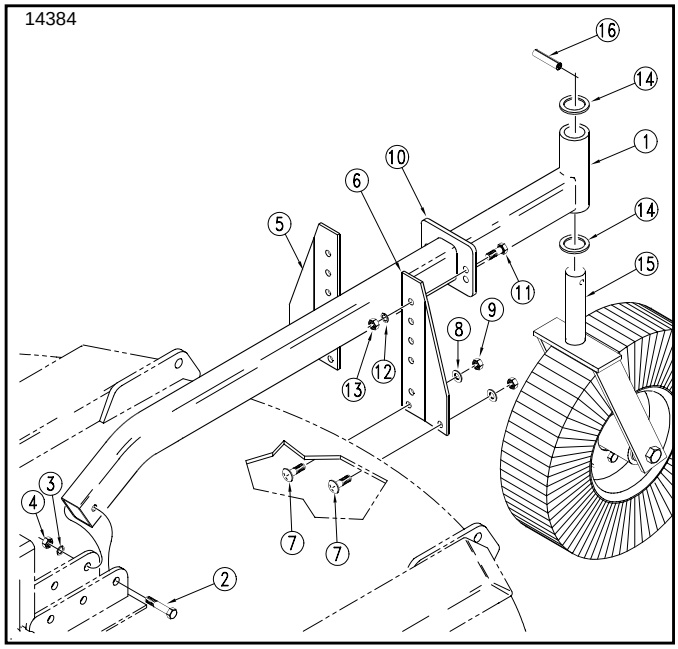
NOTE: Do not tighten hardware until assembly is complete. Refer to **"Torque Values Chart for Common Bolt Sizes"** on page 32.

Refer to Figure 1-7:

1. Slide adjustment plate (#10) onto tailwheel arm (#1) as shown.

IMPORTANT: If chainguards are used, install tailwheel arm (#1) in rear hole as shown. If chainguards are not used, install in front hole.

2. Attach tailwheel arm (#1) to deck with 5/8"-11 x 3 1/4" GR5 hex head bolt (#2), 5/8" lock washer (#3), and 5/8" nut (#4).
3. Assemble tailwheel adjusting brackets (#5 & #6) to deck with four 1/2"-13 x 1 1/2" GR5 carriage bolts (#7), 1/2" flat washers (#8), and 1/2" lock nuts (#9).
4. Install shim washer (#14) onto yoke spindle (#15) and insert spindle into tailwheel arm (#1). Slide 2nd shim washer (#14) onto yoke spindle and secure with roll pin (#16).
5. Assemble tailwheel mounting bracket (#10), to adjusting brackets (#5 & #6) with two 1/2" -13 x 1 1/2" GR5 hex head bolts (#11), 1/2" lock washers (#12), and 1/2" nuts (#13).
6. Refer to **"Cutting Height Adjustment"** on page 16 to adjust tail wheel height.



Single Tailwheel Assembly
Figure 1-7

Dual Tailwheel Assembly

IMPORTANT: If chainguards are used, be sure to install them before installing the tail wheel.

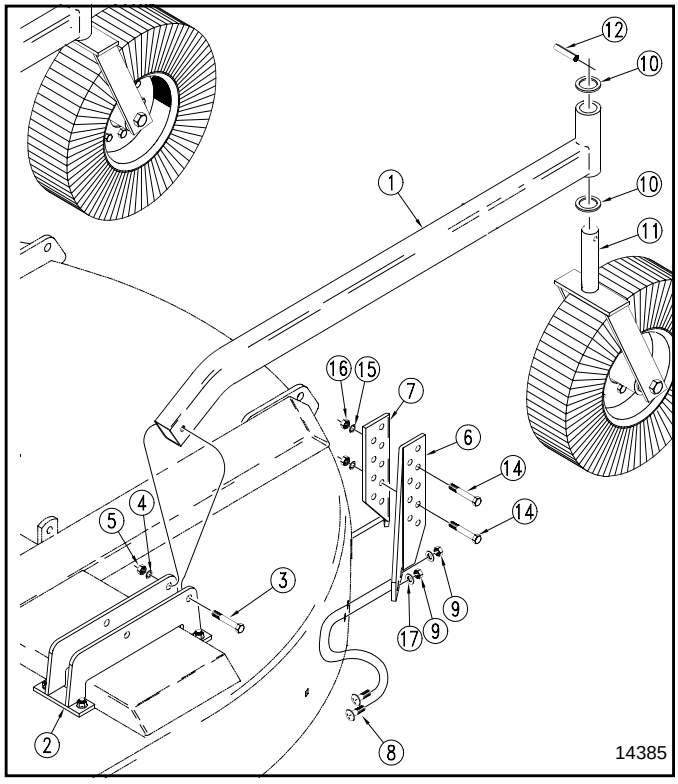
NOTE: Do not tighten hardware until assembly is complete. Refer to **"Torque Values Chart for Common Bolt Sizes"** on page 32.

Refer to Figure 1-8:

1. Attach tailwheel arm (#1) to tailwheel bracket (#2) with 5/8" -11 x 3 1/4" hex head bolt (#3), 5/8" lock washer (#4), and 5/8" nut (#5).

IMPORTANT: If chainguards are used, install tailwheel arm (#1) in rear hole as shown. If chainguards are not used, install in front hole.

2. Assemble tailwheel adjusting brackets (#6 & #7) to cutting deck using four 1/2"-13 x 1 1/2" GR5 carriage bolts (#8), lock nuts (#9) and flat washers (#17).
3. Install shim washer (#10) on spindle (#11). Insert spindle into tailwheel arm and add 2nd shim (#10) to yoke spindle. Secure with roll pin (#12).
4. Install two 1/2" -13 x 3 1/2" GR5 hex head bolts (#14), lock washers (#15), and nuts (#16) in adjusting brackets (#6 & #7).
5. Repeat for opposite side.
6. Refer to **"Cutting Height Adjustment"** on page 17 to adjust tail wheel height.



Dual Tailwheel Assembly
Figure 1-8

Tractor Hook-Up

3-Point Tractor Hook-Up

DANGER

Tractor hook-up to equipment is dangerous and can result in serious injury or death. ***Do not*** *allow anyone to stand between the Rotary Cutter and tractor during hook-up operations.* ***Do not*** *operate the hydraulic 3-point lift controls while someone is directly behind the tractor or near the cutter.*

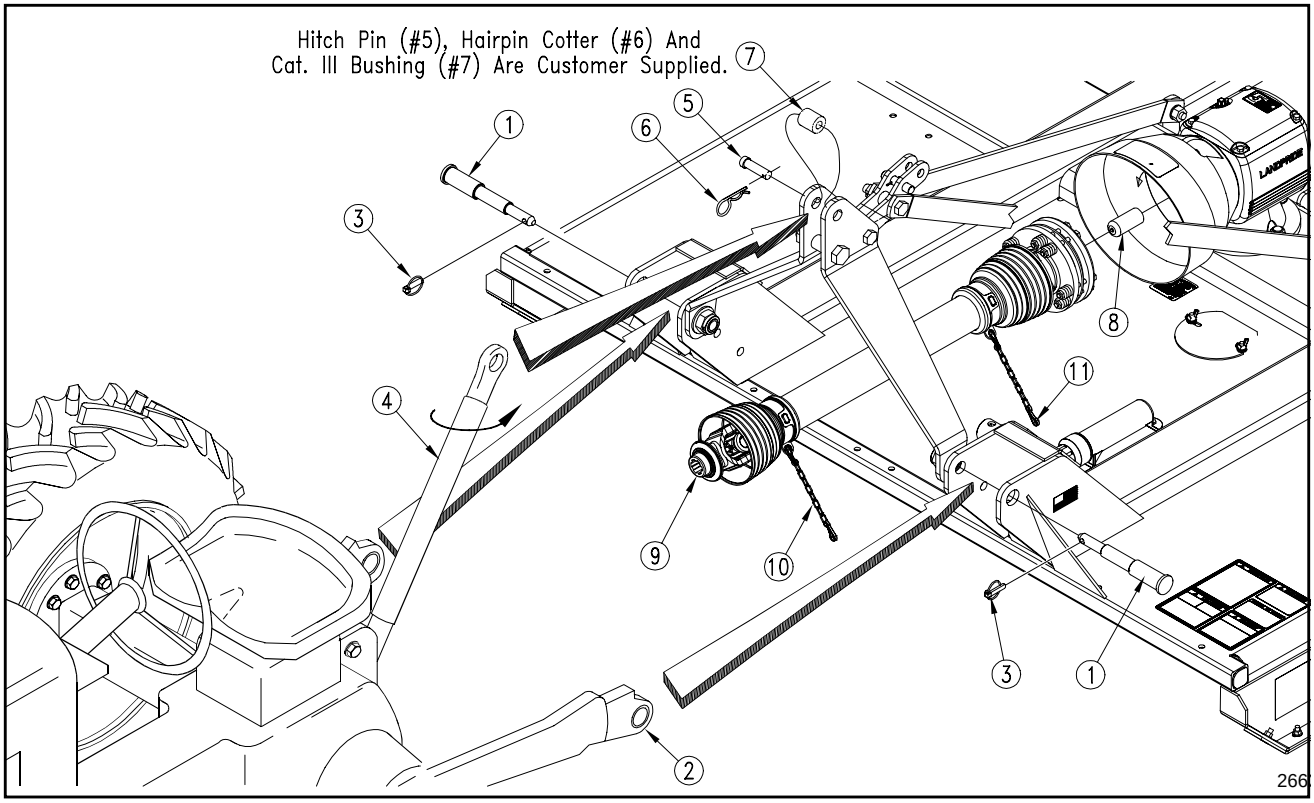
A 3-Point Category II or Category III hitch is required. The lower 3-Point arms of the 3-Point hitch must be stabilized to prevent side-to-side movement. Most tractors have sway blocks or adjustable chains for this purpose.

Determine your tractor's hitch category.

- A **Category II** tractor will have a 1 1/8" dia. hole in the lower hitch links and a 1" dia hole in the top link.
- A **Category III** tractor will have a 1 7/16" dia. hole in the lower hitch links and a 1 5/16" dia hole in the top link.

Refer to Figure 1-9:

1. Locate cutter on a flat level surface.
2. Slowly back tractor up to the Rotary Cutter while using the tractor's 3-point hydraulic control to position the tractor's lower hitch link holes (#2) in the clevis and aligned with the hitch pins (#1).
3. Engage tractor park brake, shut tractor engine off and remove key before dismounting from tractor.
4. With tractor's lower hitch arms aligned and positioned in the clevises, attach the lower arms to the clevises with hitch pins (#1) and secure with linchpins (#3).
5. If required, start tractor and slowly raise 3-point hitch to align center link with hitch pin hole. Shut tractor engine off as described in step 3 once aligned.
6. Connect top center link (#4) to upper hitch with customer supplied 1" clevis pin (#5) and hairpin cotter (#6). If your tractor is a Category III, then a customer supplied 1 1/4" spacer (#7) will be required.
7. Ensure that the lower hitch arms are blocked to prevent excessive side movement.
8. Return to tractor and slowly operate controls up and down to ensure that the drawbar, tires, and other equipment on the tractor do not contact the deck and PTO driveline. Move or remove drawbar if it interferes.
9. Manually adjust one of the two Lower lift arms up or down to level the Rotary Cutter from left to right.
10. Manually adjust the center link (#4) length to level cutter from front to rear. Additional adjustments will be made later.
11. The lift link rods on your tractor's 3- point hitch should be adjusted to allow for lateral float. Please consult you tractor's manual for adjusting instructions.



3-Point Tractor Hook-Up
Figure 1-9

Driveline Installation

If the Rotary Cutter is to be used on more than one tractor, an additional driveline may be required especially if a quick hitch is used.

CAUTION

Do not use a PTO adaptor. A PTO adapter will increase strain on the tractor's PTO shaft resulting in possible damage the shaft and driveline.

CAUTION

Tractor PTO shield and all Rotary Cutter guards must be in place at all times during operation!

CAUTION

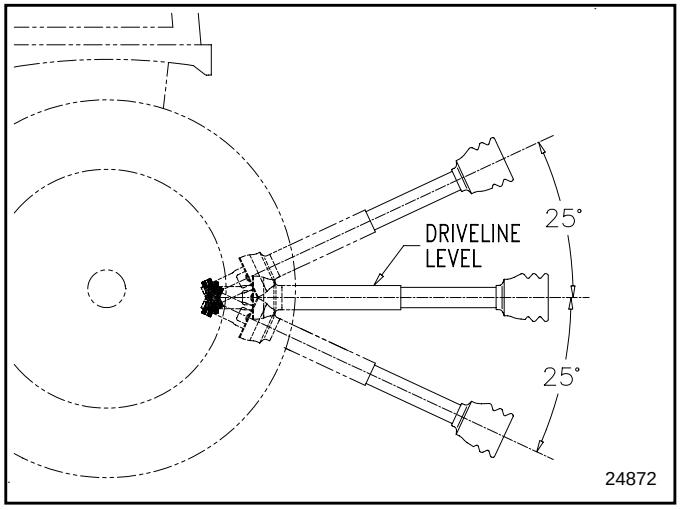
Always engage parking brake, shut off tractor and remove key before dismounting from tractor.

WARNING

Damaged drivelines can cause serious injury or death.

IMPORTANT: Some tractors are equipped with multispeed PTO ranges. Be certain your tractor 's PTO is set for 540 rpm.

IMPORTANT: Avoid premature driveline breakdown. A driveline that is operating **must not exceed** an angle of 25 degrees up or down while operating the 3-point lift. See Figure 1-10 below.



Maximum PTO Driveline Movement During Operation
Figure 1-10

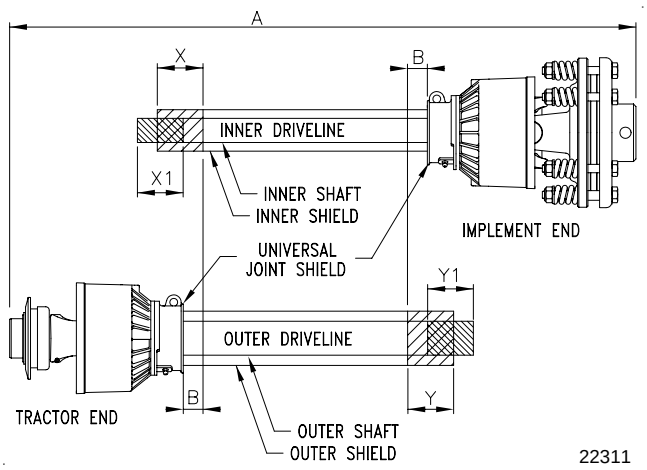
Driveline Minimum Length

IMPORTANT: Always check driveline minimum length during initial setup, when connecting to a different tractor and when alternating between using a quick hitch and a standard 3-point hitch. More than one driveline may be required to fit all applications.

IMPORTANT: It is necessary to align and level the tractor's PTO shaft with the gearbox shaft when checking driveline minimum length. Too long a driveline can damage tractor, gearbox and driveline.

Refer to Figure 1-11 on page 14:

1. Obtain the shortest distance possible between tractor PTO shaft and gearbox shaft by starting the tractor and slowly engaging 3-point lift to move the lower arms up or down until the gearbox shaft is aligned and level with the tractor's PTO shaft. Securely block cutter deck in this position.
2. Place tractor gear selector in park, shut tractor engine off, set park brake and remove switch key.
3. Attach driveline to cutter and tractor as follows:
   a. Remove gearbox shaft cover (#8). (See Figure 1-9 on page 12.)
   b. Slide inner yoke of driveline over the gearbox shaft and secure with locking collar.
   c. Slide outer yoke of driveline over the tractor's PTO shaft and secure with locking collar.
   d. Skip to step 5 on page 14 if driveline fits between tractor and Rotary Cutter.
4. The driveline will require shortening if it is too long to fit between the tractor and Rotary Cutter. Shorten driveline as follows:
   a. Check to make sure cutter and tractor PTO shafts are level with each other and the deck is securely supported at this height with support blocks.
   b. Pull driveline profiles apart into two sections as shown in Figure 1-11.
   c. Attach outer driveline universal joint to tractor PTO shaft and inner driveline universal joint to gearbox shaft. Pull on each driveline section to be sure universal joints are secured.
   d. Hold driveline sections parallel to each other to determine if they are too long. The inner and outer shields on each section should end approximately 1" short of reaching the universal joint shield on the adjacent section (see **"B"** dimension). If they are too long, measure 1" (**"B"** dimension) back from the universal joint shield and make a mark at this location on the inner and outer shields.
   e. Cut off inner shield at mark ("**X**" dimension). Cut same amount off inner shaft ("**X1**" dimension). Repeat cut off procedure ("**Y**" & "**Y1**" dimensions) to cut outer driveline half.
   f. Remove all burrs and cuttings.



Driveline Shortening
Figure 1-11

5. With driveline profiles pulled apart, apply multi-purpose grease to the inside of the outer profile and reassemble the two profiles.
6. Attach inner driveline yoke to the gearbox shaft and outer driveline yoke to the tractor's PTO shaft.
7. The driveline should now be moved back and forth to insure that both ends are secured. Reattach any end that is loose.

IMPORTANT: Two small chains (Items 10 & 11 in Figure 1-10 on page 13) are supplied with the driveline. These chains must be attached to the outer and inner driveline yoke shields and to the cutter deck and tractor to keep driveline shields from rotating.

8. Hook a safety chain in the hole on the outer driveline yoke shield and its opposite end to the tractor.
9. Hook the other safety chain in the hole on the inner driveline yoke shield and its opposite end to the cutter.
10. Start tractor and raise Rotary Cutter just enough to remove support blocks fro under the cutter deck.
11. Slowly engage tractor’s 3-point controls to lower the cutter. Check for sufficient drawbar clearance. Move drawbar ahead, aside or remove if required.

Leveling Procedure

There are 4 primary adjustments that should be made prior to actual field operations:

- Deck leveling from left to right
- Tractor top link length
- Tractor lower link height
- Tailwheel height

Proper adjustment of each of these items will provide for higher efficiency, improved cutting performance and longer blade life. The following tools will be needed:

- Pliable tape measure
- Carpenters level
- 3/4” Open end or hex end wrench or socket set
- Protective gloves

Deck Leveling From Left to Right

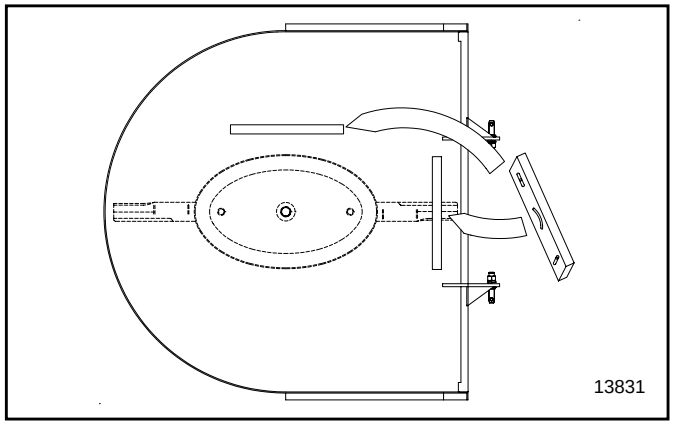
Refer to Figure 2-1:

1. Locate tractor and Rotary Cutter on a flat, level surface.
2. Use tractor’s hydraulic 3-point control to lower cutter until tailwheel contacts ground surface.

DANGER

Engage parking brake, disengage PTO, shut off tractor and remove key before proceeding. Ensure that all moving parts have come to a complete stop before dismounting from tractor.

3. Place a Carpenters level or other suitable leveling device on the front of the cutter deck. Adjust either one or both of the tractors 3-point lower link height adjustments to level the deck from left to right. Some tractors have only a single adjusting crank.



Deck Leveling
Figure 2-1

Deck Leveling From Front to Rear

CAUTION

Wear a pair of gloves when checking cutting height. Avoid direct contact with the cutting edge of the blade.

DANGER

Engage parking brake, disengage PTO, shut off tractor and remove key before proceeding. Ensure that all moving parts have come to a complete stop before dismounting from tractor.

IMPORTANT: Blade positioning is very important. The blades should be positioned to cut material only at the front of the cutter as shown in Figure 2-4 on page 16. If deck is level or rear of cutter is lower than the front, then the blades are subject to continuous material flow resulting in additional blade wear, horsepower loss and frequent blade sharpening.

Refer to Figure 2-1:

1. Place a Carpenters level on one of the main deck channels. Using the tractor’s 3-point hydraulic control lever, raise or lower the 3-point arms until the deck is slightly lower at the front (approximately 1” lower) than at the back.
2. The top center link should be loose when deck rear is supported by the tail wheel. If not, lengthen center link until loose. Final adjustment will be made later.

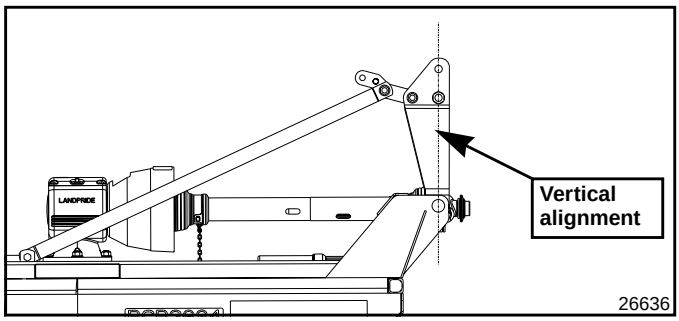
Refer to Figure 2-4 on page 16:

3. With gloves on, carefully rotate each blade tip to the position shown in Figure 2-4 on page 16.
4. At the front of the cutter, measure the distance from blade cutting tip to ground surface. This distance is known as the **“Nominal Cutting Height”**.
5. The tail wheel will need adjusting if nominal cutting height is not at the preferred cutting height. Adjust tailwheel per instructions on pages 16 and 17.
6. Repeat steps 1 to 5 until preferred cutting height is achieved.
7. Set stop on tractor lift quadrant so cutter can be returned to the same height.

Top Center Link Length Adjustment

Refer to Figure 2-2:

1. Lower cutter deck to the nominal cutting height.
2. Adjust length of tractor’s 3-point top center link such that the top and bottom hitch pins are aligned vertically with each other.
3. Lock center link in this position.



Top Link Adjustment
Figure 2-2

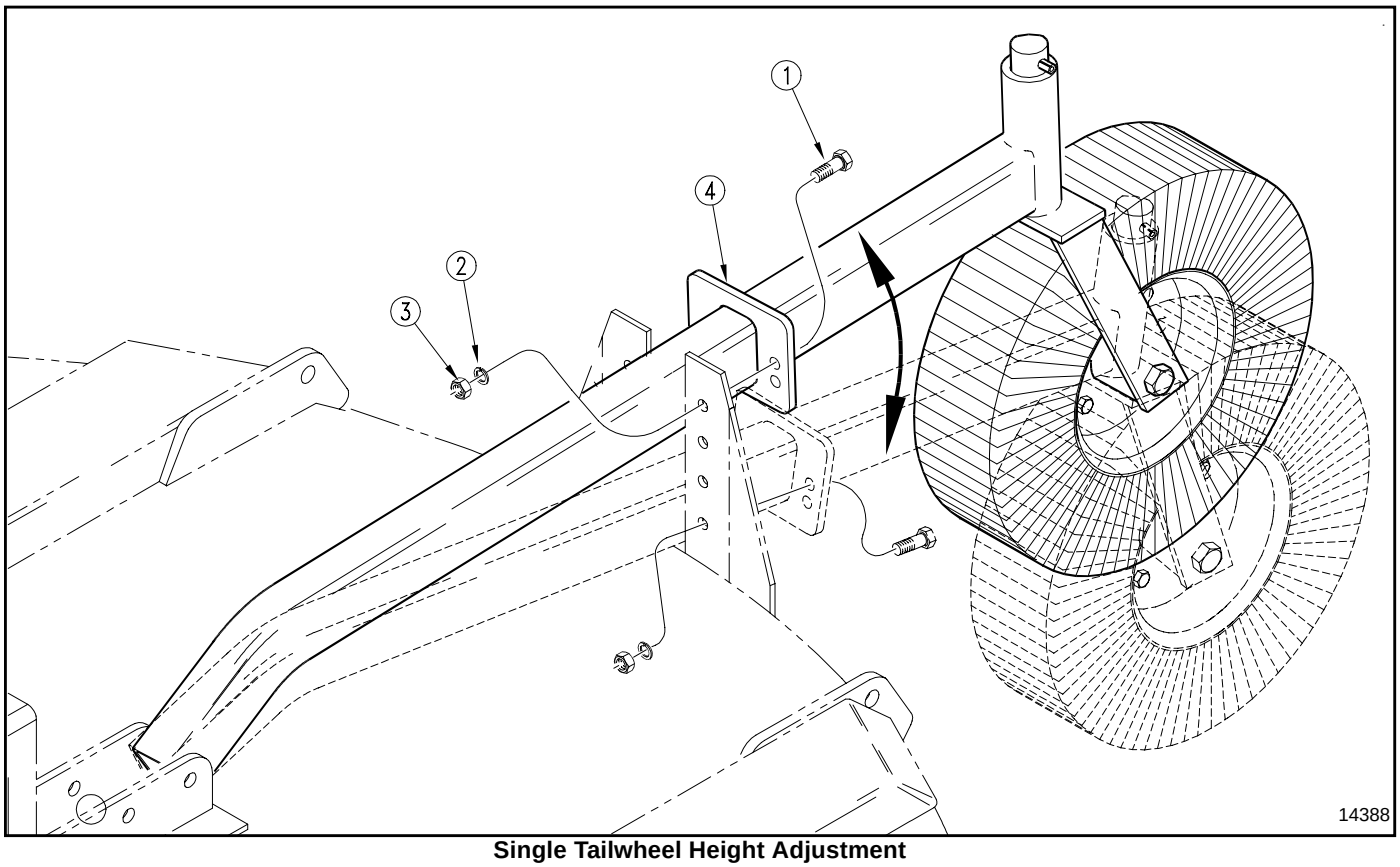
Cutter Height Adjustment

Single Tailwheel

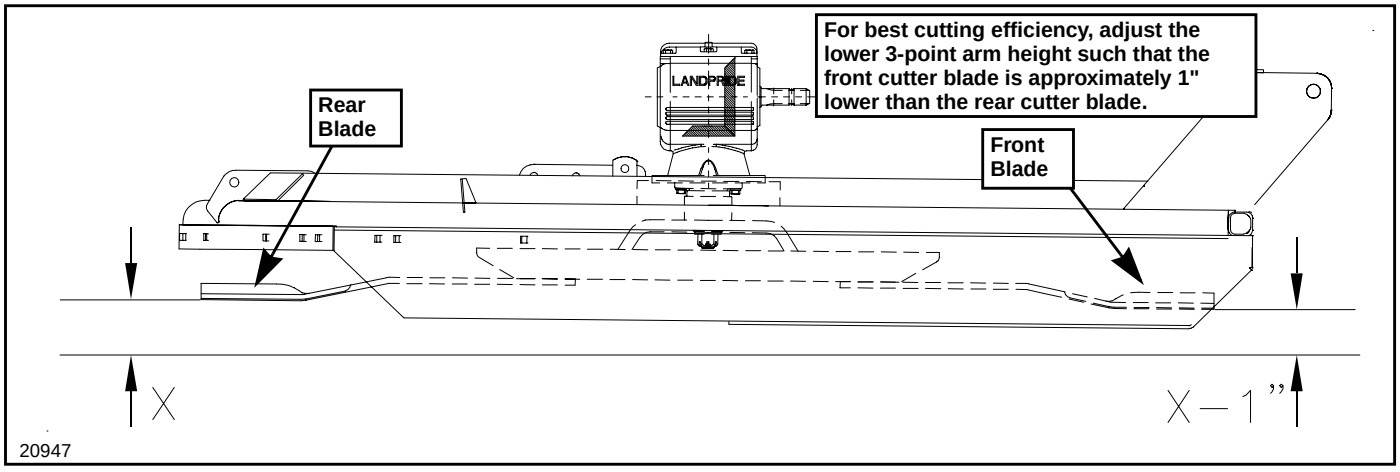
Refer to Figure 2-3:

If the cutting height is too high or too low, the tailwheel must be adjusted as follows:

1. Use tractor's 3-point hydraulic control to lift the tailwheel off the ground.
2. Remove attaching hardware; 1/2" -13 x 1 1/2" GR5 hex head bolt (#1), 1/2" lock washer (#2) and 1/2" nut (#3).
3. Adjust tailwheel up or down to desired cutting height by repositioning adjusting plate (#4) and replace attaching hardware.



Single Tailwheel Height Adjustment
Figure 2-3

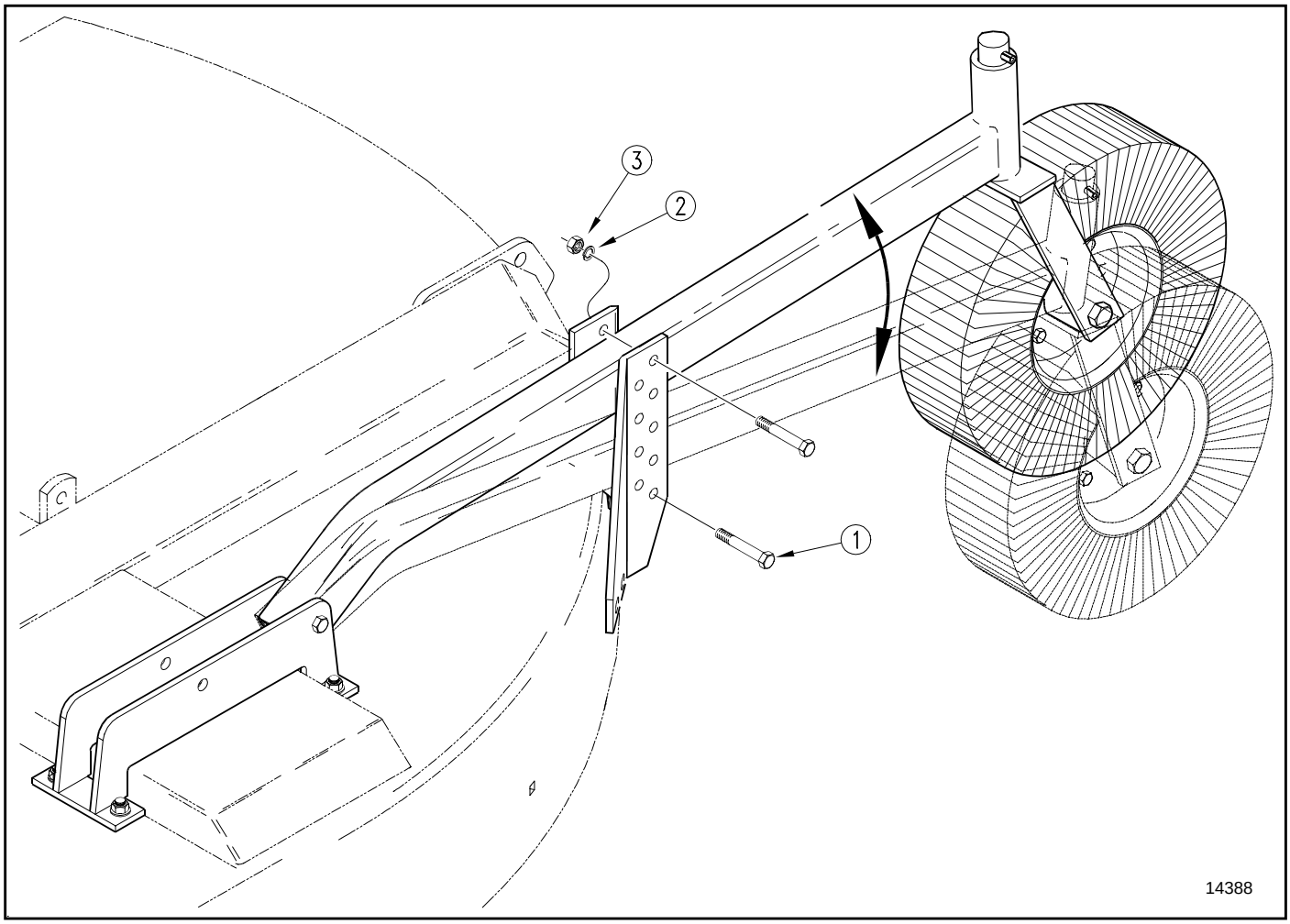

For best cutting efficiency, adjust the lower 3-point arm height such that the front cutter blade is approximately 1" lower than the rear cutter blade.
Rear Blade
Front Blade
LANDPRIDE
X
X – 1"
20947

Cutting Height
Figure 2-4

Dual Tailwheel

Refer to Figure 2-5:

4. If cutting height is too high or too low, the tailwheels must be adjusted as follows:
   a. Use tractor's 3-point hydraulic control to lift the cutter tailwheel off the ground surface.
   b. Remove attaching hardware; 1/2" -13 x 3 1/2" GR5 hex head bolt (#1), 1/2" lock washer (#2) and 1/2" nut (#3).
   c. Adjust tailwheel up or down to desired cutting height and replace attaching hardware.



Dual Tailwheel Height Adjustment
Figure 2-5

Operating Check List

Hazard control and accident prevention are dependent upon the awareness, concern, prudence and proper training involved in the operation, transport, maintenance and storage of the Rotary Cutter. Therefore, it is absolutely essential that no one operates the Rotary Cutter without first having read, fully understood and become totally familiar with the Operator's Manual. Make sure the operator has paid particular attention to:

- **Important Safety Information**, pages 1 to 6
- **Section 1: Assembly and Set-up,** page 8
- **Section 2: Adjustments**, page 15
- **Section 3: Operating Instructions**, page 18
- **Section 5: Maintenance & Lubrication**, page 24

Operating Checklist

	Check	Reference
☐	Read **"Important Safety Information"**	Page 1
☐	Read "**Assembly & Set-up**" Instructions.	page 8
☐	Read **"Operating Instructions"**	page 18
☐	Check cutter initially and periodically for loose bolts & pins, See *Torque Values Chart*.	Page 27
☐	Check the cutter initially and periodically for loose bolts & pins, *Torque Values Chart*.	Section 1
☐	Make sure all guards and shields are in place.	Page 1
☐	Lubricate cutter as needed. Refer to **"Maintenance and Lubrication".**	Page 27

With cutter attached to a tractor and PTO disengaged and completely stopped, make the following inspections:

1. Inspect tractor safety equipment to make sure it is in good working condition.
2. Carefully raise and lower implement to ensure that the drawbar, tires, and other equipment on the tractor do not contact the cutter frame or PTO driveline.
3. Check PTO guards to make certain they are in good working condition and in place.
4. With the PTO disengaged and completely stopped, check cutting blades for sharpness.
5. Adjust tractor lower 3-point arms such that the deck is set to nominal cutting height.

IMPORTANT: Stop PTO immediately if vibration continues after a few revolutions during start-up and anytime it occurs thereafter. Wait for PTO to come to a complete stop before dismounting from tractor to check for probable causes. Make necessary repairs and adjustments before continuing on.

6. Start tractor, set throttle to idle or slightly above idle and slowly engage the PTO. Initial start-up vibration is normal and should stop after a few revolutions. Stop PTO rotation immediately if vibration continues.

IMPORTANT: Do not exceed rated PTO speed of the cutter. Excessive engine speed will cause damage to the power train components.

7. Once the cutter is running smoothly, increase tractor PTO speed to 540 RPM. Stop PTO rotation immediately if vibration occurs.

Transporting

CAUTION

When traveling on public roads at night or during the day, use accessory lights and devices for adequate warning to operators of other vehicles. Comply with all federal, state and local laws.

IMPORTANT: Always disengage the tractor's PTO before raising the cutter to transport position.

1. Make sure driveline does not contact tractor or cutter when raising cutter to the transport position.
2. Reduce tractor ground speed when turning and leave enough clearance so cutter does not contact obstacles such as buildings, trees or fences.
3. Limit transport speed to 20 mph. Transport only with a farm tractor of sufficient size and horse power.
4. When traveling on roadways, transport in such a way that faster moving vehicles may pass you safely.
5. Shift tractor to a lower gear when traveling over rough or hilly terrain.

Un-hooking the Rotary Cutter

Un-hook Rotary Cutter from the tractor as follows:

1. Park on a level solid surface.
2. Lower deck to level ground or onto blocks supporting the deck just above ground level.
3. Engage tractor park brake, shut tractor engine off and remove key before dismounting from tractor.
4. Disconnect driveline from tractor PTO shaft.
5. Un-hook 3-point hitch from tractor. Reinstall hitch pins, linchpins and hair pin cotters in cutter hitch for storage.
6. Rotate driveline storage hook down and place driveline in storage hook.
7. See "**Storage Instructions**" on page 26 if cutter is to be stored for a long time.

Cutting Instructions

CAUTION
Do not over speed PTO or machine damage may result. This cutter is designed to be used only with a tractor having a 540 RPM rear PTO.

WARNING
The RCR26 series cutter is designed to cut grass and brush up to 2" in diameter. Using this cutter for another type of work can damage the drive components, deck and support frame.

DANGER
Gearbox and driveline shields must be secured in place when operating to avoid injury or death from entanglement in rotating drivelines.

DANGER
Rotary Cutters have the ability to discharge objects at high speeds. Therefore, the use of front & rear deck safety shields is strongly recommended when cutting along highways or in an area where people may be present!

DANGER
Never operate the cutter in the raised position. The cutter can discharge object at high speeds resulting in serious injury or death.

DANGER
Do not cut on steep inclines. The tractor and cutter could flip over causing damage to the equipment, serious bodily injury or death.

DANGER
Do not use cutter to lift or carry objects. Lifting and/or carrying objects can result in damage to the cutter, serious bodily injury or death.

DANGER
Never carry a person on the cutter. A person can fall and be ran over by the cutter or tractor causing serious injury or death.

DANGER
Do not use deck as a working platform. The deck is not properly designed or guarded for this use. Using deck as a working platform can cause serious injury or death.

DANGER
Do not use deck as a fan. Cutting blades are not properly designed or guarded for this use. Using the deck as a fan can result in injury and/or death.

NOTE: Your Rotary Cutter is equipped with free swinging cutting blades to reduce shock loads to the cutter if striking obstacles.

IMPORTANT: It is important to maintain correct RPM PTO speed. Loss of PTO speed will allow the blades to hinge back and result in ragged, uneven cutting.

This cutter was designed to cut grass and medium brush in right-of-ways, pastures and for shredding row crop residues.

1. Thoroughly Inspect the area to be cut for debris and unforeseen objects. Mark any potential hazards.
2. Start the machine slowly; do not use full throttle. Allow 10 seconds for cutter blades to become aligned properly before going to 540 RPM.
3. Never run fast enough to overload the tractor or cutter. Ground speed depends on two things:
   - The density of the material being cut.
   - The size of tractor operating the cutter.
4. After the first 50 feet, stop and check to see that the cutter is adjusted properly.
5. Do not engage PTO when cutter is already in the fully raised or lowered positions.
6. Periodically disengage PTO, turn off tractor, remove ignition key and check for foreign objects wrapped around the rotor shaft. Block cutter deck up before removing objects.

General Operating Instructions

It is important that you familiarized yourself with the Operator's Manual, completed Operators Checklist, properly attached cutter to your tractor, made leveling adjustments, and preset your cutting height before beginning a running operational safety check on your Land Pride 84" Rotary Cutter.

The running operational safety check may now be done. It is important that at any time during this safety check you detect a malfunction in either the cutter or tractor that you immediately shut the tractor off, remove the key, and make necessary repairs and/or adjustments before continuing on.

Make sure before starting the tractor that the park brake is engaged, the PTO is disengaged, and the cutter is resting on the ground. Start the tractor and set the engine throttle speed at a low idle. Raise the cutter with the tractor's rear hydraulic lift control lever to transport

position making sure that the PTO shaft does not bind and does not contact the cutter frame. Lower the cutter to the ground and at a low engine speed engage the PTO. If everything is running smoothly at a low idle, slowly raise the cutter to transport height checking for bind or chatter in the driveline. Lower the cutter to the ground and increase the tractor's engine rpm until it reaches the cutter full PTO operating speed of 540 rpm. If everything is still running smoothly, once more raise the cutter to transport height to check for driveline bind or chatter. Lower the cutter to the ground, return the engine to a low idle, and disengage the PTO. Position the adjustable stops on the tractor's hydraulic lift lever so the cutter can be consistently returned to the same cutting and transport height.

You should now be ready to transport to your cutting site at a safe ground speed. On roadways transport in such a manner that faster moving vehicles can easily see you and pass you safely. Reduce your speed when travelling over rough and hilly terrain. Avoid quick or sharp steering corrections. Take extra care to insure that the mower doesn't come into contact with obstacles such as trees, buildings or fences. Use accessory lights and appropriate reflective devices to provide adequate warning to pedestrians and other vehicle operators when traveling on public roads and in the dark of night. Comply with all local, state and federal laws.

It is important that you inspect the area where you will be cutting and clear it of safety hazards and foreign objects either before or after you arrive at the cutting site. Never assume the area is clear. Cut only in areas you are familiar with and are free of debris and unseen objects. Extremely tall grass should be cut twice to detect potential hazards. In the event you do strike an object stop the cutter and tractor immediately to inspect and make necessary repairs to the cutter before resuming operation. It really pays to inspect a new area and to develop a safe plan before cutting.

You will need to maintain 540 rpm PTO speed and 2 to 5 mph ground speed to produce a clean cut. Make a tractor gear and range selection that will enable you to maintain these speed combinations. Generally the quality of cut is better at lower ground speeds. Dense ground cover will create the need to slow down even more. In certain conditions tractor tires will roll grass down resulting in an uneven cut when the grass fails to rebound. Should this happens you may try reversing the direction of cut and/or double cut to achieve the desired finish. Avoid very low cutting heights especially on extremely uneven terrain. Always cut downward on slopes and avoid crossing the face of steep slopes. Avoid sharp drops and cross diagonally through dips to prevent hanging up the tractor and cutter. Slow down in turns. Remember to look back often.

Now that you're prepared and well briefed you may begin cutting. Begin mowing by doing the following:

- Reducing the tractor's engine rpm
- Make sure the cutter is on the ground in cutting position
- Engage the PTO
- Raise the engine rpm to the appropriate PTO speed
- Begin mowing.

Make wide turns when possible. Three-point hitch and optional Quick-Hitch models can be lifted into transport position to make tight turns and to reverse direction. Try increasing or decreasing ground speed to determine the effect on quality of cut. With a little practice you will be pleased with what you and your Land Pride Rotary Cutter can do.

Whether you are done mowing, need to take a break, or just need to make a few adjustments to the cutter, remember to always do the following:

- Reduce the tractor's engine rpm
- Disengage the PTO
- Stop on level ground
- Set the park brake
- Turn off the engine and remove the key
- Stay on the tractor until the cutter blades have come to a complete dead stop.

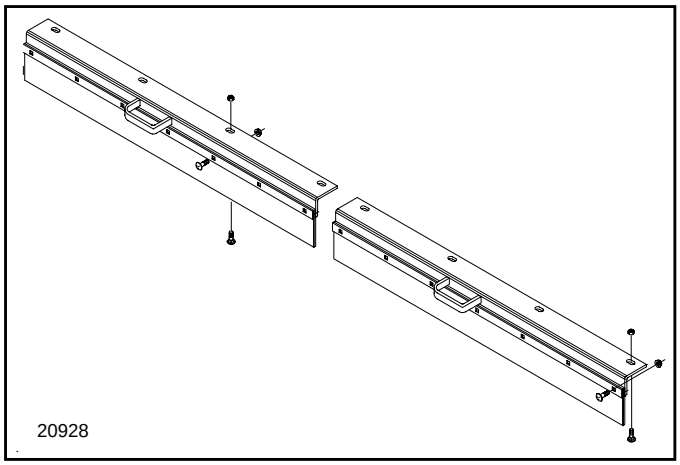
Front and Rear Safety Guard Options

DANGER

Rotary Cutters have the ability to discharge objects at high speeds; therefore, use of front and rear safety shields is strongly recommended when cutting along highways and in areas where people may be present.

IMPORTANT: Not all objects will be stopped by safety shields. Therefore, Land Pride recommends using extreme caution when cutting in public areas. It is best to operate the Rotary Cutter with no one around.

Land Pride offers two types of front guards to best suit your application. They are the rubber skirt guard and chain skirt guard. The rubber skirt guard is more economical and designed for light duty applications. The chain guard is designed to handle heavier applications where cutter blades make contact with solid dense objects that are capable of tearing through rubber skirts.



Front Rubber Safety Guard
Figure 4-1

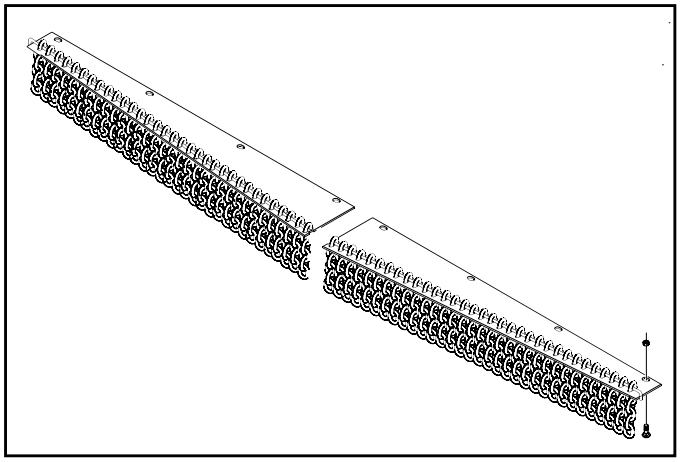
Front Rubber Guard

Refer to Figure 4- 1:

Part Number & Description

312-483A Front Rubber Guard Assembly

See “Front Safety Guard” on page 10 for proper installation.



Front Chain Safety Guard
Figure 4-2

Front Chain Guard

Refer to Figure 4-2:

Part Number & Description

312-435A Front Chain Guard Assembly

See “Front Safety Guard” on page 10 for proper installation.

Land Pride offers a rear chain safety guard designed to handle heavy applications where cutter blades make contact with solid dense objects.

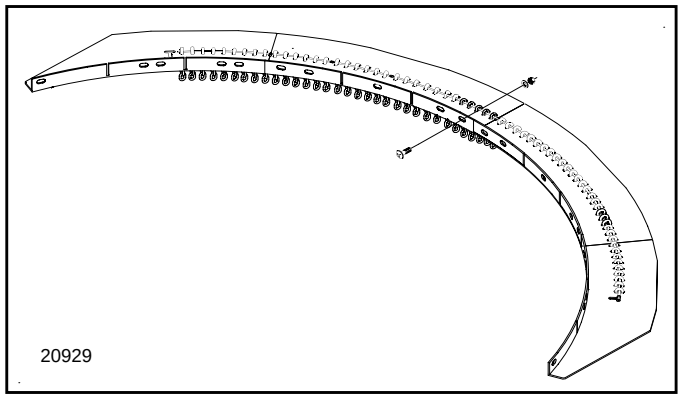
Rear Chain Guard

Refer to Figure 4-3:

Part Number & Description

312-436A Rear Chain Guard Assembly

See “Rear Chain Guard” on page 10 for proper installation.



Rear Chain Safety Guard
Figure 4-3

Hitch/Wheel Options

There are two Hitch/wheel combinations to meet your specific requirements.

Part Number & Description

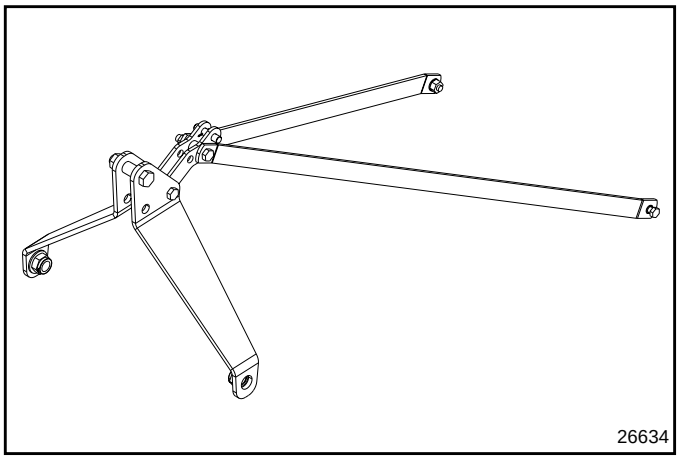
312-116A 3-Point Quick Hitch with Single Tail Wheel

312-117A 3-Point Quick Hitch with Dual Tail Wheels

3-Point Hitch

Refer to Figure 4-4:

The standard 3-Point Hitch shown in Figure 4-4 is included with the single leveling wheel option and dual leveling wheel option.

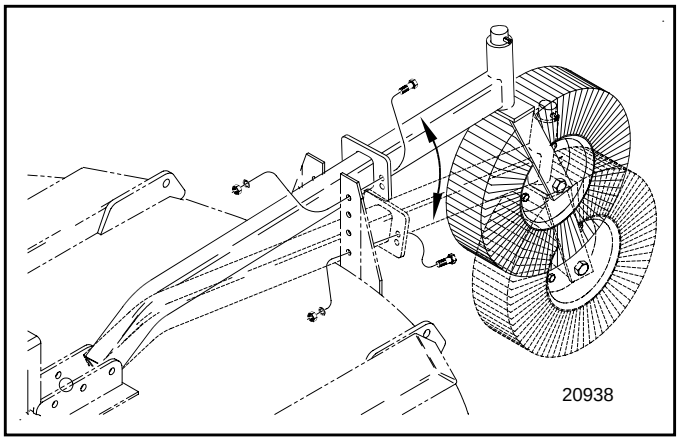


3-Point Hitch
Figure 4-4

Single Leveling Wheel

Refer to Figure 4-5:

The single leveling, 15” laminated tire is an economical solution to mowing when terrain is fairly level. Rear deck height is adjusted by manually raising and lowering the wheel in the rear support bracket. The cutter’s front is leveled with the tractor’s three point hitch. See Section 3, “Assembly and Set-up”, for proper installation and detailed adjustment information.

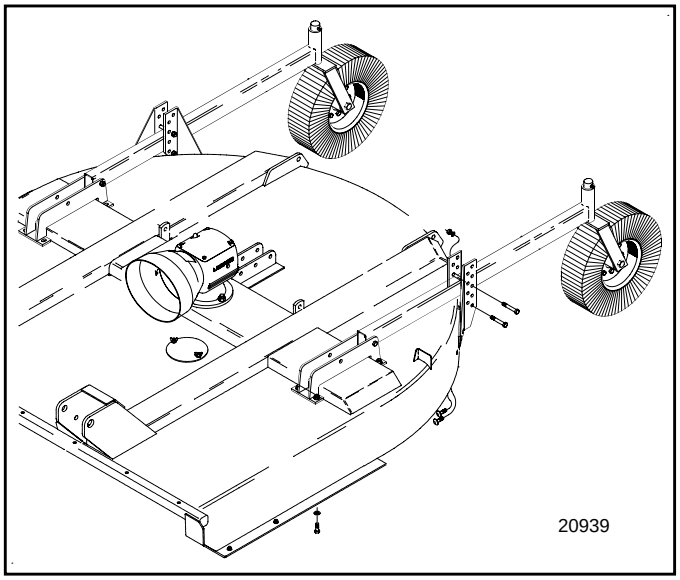


Single Leveling Wheel
Figure 4-5

Dual Leveling Wheels

Refer to Figure 4-6:

The dual leveling, 15” laminated tires is a tougher arrangement designed to distribute cutter weight over a wider area when mowing rough terrain. Rear deck height is adjusted by manually raising and lowering wheels in the rear support brackets. The cutter front is leveled with the tractor’s three point hitch. See Section 3, Assembly and Set-up”, for proper installation and detailed adjustment information.



Dual Leveling Wheels
Figure 4-6

Check Chain Option

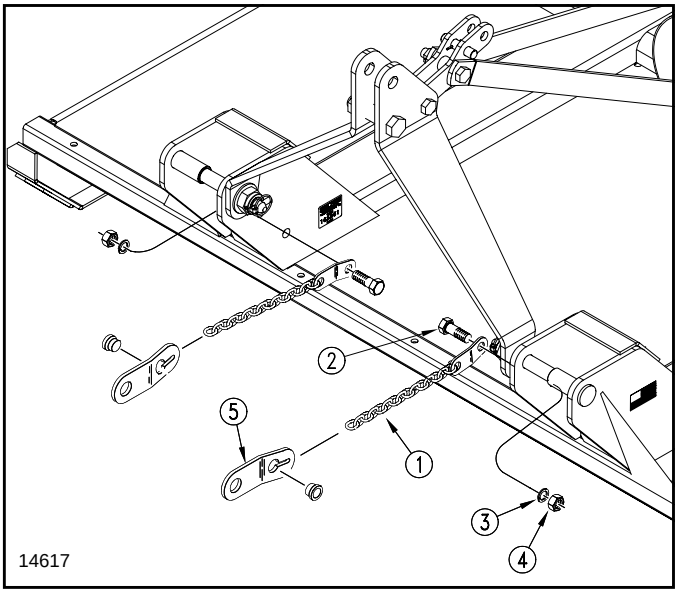
Check Chains are used to control cutting height and allows the cutter to be lowered to the same preset cutting height effortlessly.

NOTE: For additional safety in transport, raise cutter as high as possible, and shorten check chains to prevent inadvertent falling in transport.

See “Check Chain Installation (Optional)” on page 10 for proper installation.

Part Number & Description

312-071A Check Chain Assembly



Optional Check Chain Assembly
Figure 4-7

Maintenance

Proper servicing and adjustment is the key to the long life of any implement. With careful and systematic inspection, you can avoid costly maintenance, time and repair.

After using your Rotary Cutter for several hours, check all bolts to be sure they are tight.

Replace any worn, damaged or illegible safety labels by obtaining new labels from your Land Pride Dealer.

Cutter Blade

DANGER

Always disconnect main driveline from tractor PTO before servicing the underside of the cutter deck. Cutter can be engaged if tractor is started resulting in damage to the cutter, bodily injury and/or death.

WARNING

Always secure cutter deck in the up position with solid supports before servicing the underside of the cutter. Never work under equipment supported by hydraulics. Hydraulics can drop equipment if controls are actuated or if hydraulic lines burst. Either situation can drop the cutter instantly even when power to the hydraulics is shut off.

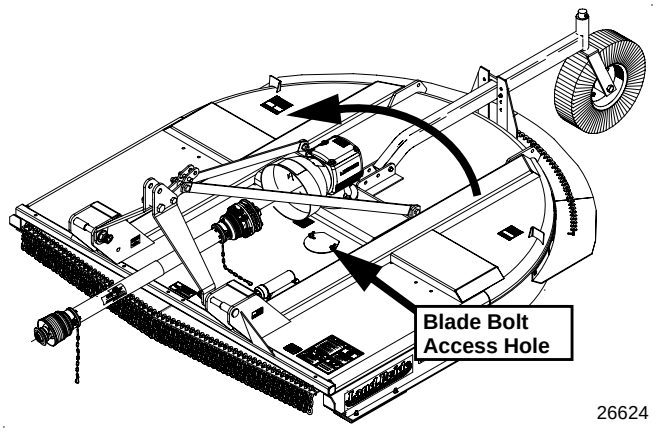
IMPORTANT: Replace cutting blades with genuine Land Pride blades only. Blades must be replaced in mating pairs. Not replacing both blades will result in an out-of-balance condition that will contribute to premature bearing break down on the spindle hub and create structural cracks in cutter housing.

Always inspect cutting blades before each use. Make certain they are properly installed and are in good working condition. Replace any blade that is damaged, worn, bent, or excessively nicked. Small nicks can be ground out when sharpening.

1. Place tractor gear selector in park and/or set brakes, shut engine off and remove ignition key.
2. Disconnect main driveline from tractor PTO and secure cutter deck in the up position with solid supports before servicing underside of cutter.
3. Inspect cutting blades. Make certain they are properly installed and are in good working condition. Replace any blade that is damaged, worn, bent, or excessively nicked. Small nicks can be ground out when sharpened.
4. To remove blades from the cutter, align blade bolts with blade bolt access hole located in the deck as shown in Figure 5-1.
5. Both blades should be sharpened at the same angle as the original cutting edge and must be replaced or re-ground at the same time to maintain proper balance. The following precautions should be taken when sharpening blades:
   a. Do not remove more material than necessary.
   b. Do not heat and pound out a cutting edge.
   c. Do not grind blades to a razor edge. Leave a blunt cutting edge approximately 1/16” thick.
   d. Always grind cutting edge so end of blade remains square to cutting edge and not rounded.
   e. Do not sharpen back side of blade.
   f. Both blades should weigh the same after sharpening with not more than 1 1/2 oz. difference.

Refer to Figure 5-1:

6. Carefully check cutting edges of blades in relation to blade carrier rotation to ensure correct blade placement. Blade rotation is counterclockwise with cutting edge leading. Airfoil (lift) must be oriented towards the top of the deck.



Counterclockwise Blade Rotation
Figure 5-1

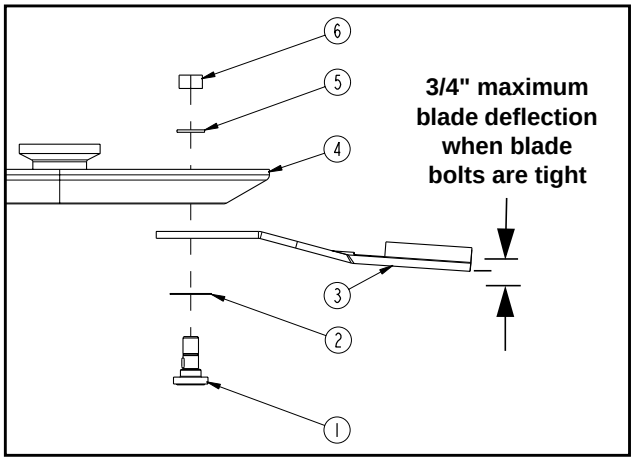
Refer to Figure 5-2 on page 25:

IMPORTANT: Examine blade bolts (#1) and washers (#5) for excessive wear and replace if worn.

IMPORTANT: Locknuts can loose their ability to lock properly once removed. Therefore, always use a used blade nut or plain nut in steps Step 7 & Step 8 below and then **replace used nut with new locknut in step Step 9.**

7. Start by assembling blades without shim (#2). Insert blade bolt (#1) through blade (#3), dish pan (#4) and flat washer (#5). Temporary secure blade with a used 1 1/8"-12 nut. **Draw nut up snug. Do not tighten.**

8. Check blade deflection. If deflection is greater than 3/4", remove blade bolt and reassemble as before except include shim (#2) in the assembly. Select shim thickness based on deflection. The greater the deflection, the thicker the shim.
9. Once blade deflection is correct, **replace used nut with new locknut (#6)** and torque to 450 ft-lbs.
10. If replacing dishpan (#4), nut on gearbox output shaft should be torqued to 450 ft-lbs. minimum and cotter pin installed in nut with legs securely bent around nut.



Cutter Blade Assembly
Figure 5-2

Land Pride Cutter Blade Parts

Item	Part No.	Part Description
	318-586A	BLADE BOLT KIT (Includes items 1, 2, 5, & 6 below)
1	802-277C	BLADE BOLT 1 1/8-12 x 3 7/16 WITH KEY
2	312-075D	BLADE SPACER 16 GA. (.060")
2	312-082D	BLADE SPACER 18 GA. (.048")
2	312-089D	BLADE SPACER 20 GA. (.036")
2	312-808D	BLADE SPACER 24 GA. (.024")
3	820-138C	STANDARD BLADE 1/2 x 4 x 32" CCW
3	820-194C	LOW LIFT BLADE 1/2 x 4 x 32" CCW
4	312-818H	27 OVALDISHPAN WELDMENT
5	804-147C	WASHER FLAT 1 HARD ASTMF436
6	803-170C	NUT HEX TOP LOCK 1 1/8-12 PLATE

Driveline Protection

Cutter drive components are protected from shock loads by a friction slip-clutch. The clutch must be capable of slippage during operation to protect the gearbox, driveline and other drive train parts.

Clutch Run-In

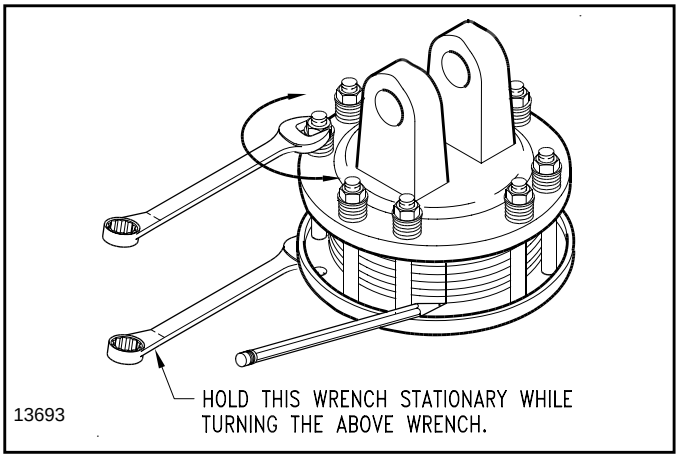
Friction clutches should be "run-in" prior to initial operation and after long periods of inactivity to remove any oxidation that may have accumulated on friction surfaces. To prevent driveline and gear box damage, repeat "run-in" instructions at beginning of each season and when moisture and/or condensation seizes inner friction plates.

CAUTION

Engage parking brake, disengage PTO, shut off tractor, and remove key before making any of the following adjustments.

Refer to Refer to Figure 5-3:

1. Using a pencil or other marker, scribe a line across the exposed edges of the clutch plates and friction discs.



Clutch
Figure 5-3

2. Carefully loosen each of the 8 spring retainer nuts on the clutch housing a total of EXACTLY 2 revolutions. It will be necessary to hold the hex end of the retainer bolt in order to count the exact number of revolutions.
3. Start tractor and engage driveline for 2-3 seconds to permit slippage of the clutch surfaces. Disengage the PTO, then re-engage a second time for 2-3 seconds. Disengage the PTO, shut off tractor and remove key. Wait for all components to stop before dismounting from tractor.
4. Inspect clutch and ensure that scribed markings made on the clutch plates have changed position. Slippage has not occurred if any two marks on the friction disc and plate are still aligned.

IMPORTANT: The clutch must be disassembled into separate friction discs if one or more friction disc did not slip during clutch run-in operation. See Clutch Disassembly on page 26.

5. Tighten each spring retainer nut on the clutch housing exactly 2 revolutions to restore clutch to original setting pressure. See Clutch Assembly on page 26 for exact spring length.
6. The clutch should be checked during the first hour of cutting and periodically each week. An additional set of scribe marks can be added to check for slippage.

Clutch Disassembly

Refer to Figure 5-4:

Disassembly of the clutch is simply a matter of removing the spring retainer nuts (#1), springs (#2) and bolts (#3) from the assembly. Each friction disc (#4) must then be separated from the metal surface adjacent to it.

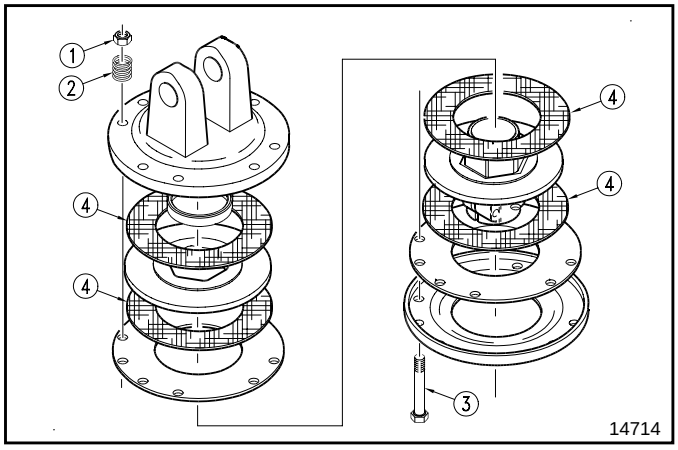
Clutch Inspection

Inspect all parts for excessive wear and condition. Clean all parts that do not require replacement.The original friction disc thickness is 1/8" (3.2 mm) and should be replaced if thickness falls below 3/64" (1.1 mm). If clutches have been slipped to the point of “smoking”, the friction discs may be damaged and should be replaced. Heat build-up may also affect yoke joints.

Clutch Assembly

Refer to Figure 5-4:

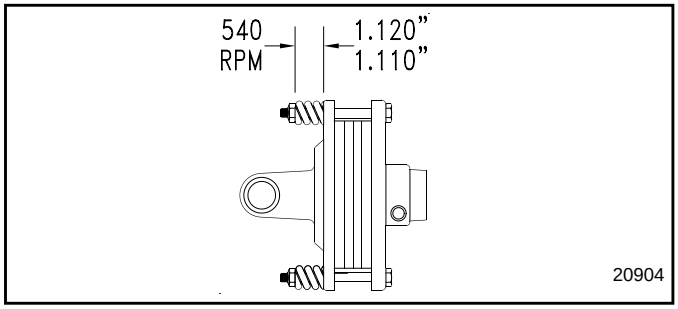
Reassemble each friction disc (#4) next to the metal plate it was separated from. Install bolts (#3) through the end plates and intermediate plates as shown. Place springs (#2) over the bolts and secure with nuts (#1).



Clutch Disassembly
Figure 5-4

Refer to Figure 5-4:

Install new friction discs if needed and reassemble all components in proper order. Progressively tighten each spring retainer bolt until the spring length is 1.110” to 1.120”.



Clutch Adjustment
Figure 5-5

Storage Instructions

At the end of the working season or when the cutter will not be used for a long period, it is good practice to clean off any dirt or grease that may have accumulated on the cutter and any moving parts.

DANGER

Always disconnect main driveline from tractor PTO and secure cutter deck in the up position with solid supports before servicing the underside of the cutter.

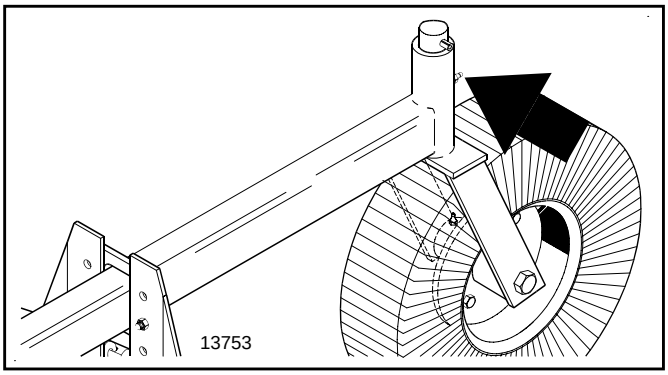
1. Clean Rotary Cutter as necessary.
2. Check blades for wear and replace if necessary, see “Cutter Blade” on page 24.
3. Inspect cutter for loose, damaged or worn parts and adjust or replace as needed.
4. Lubricate as noted under “Lubrication” on page 27.
5. Store cutter inside when possible to prolong its life.
6. Repaint parts where paint is worn or scratched to prevent rust. Ask your dealer for Aerosol Land Pride touch-up paint.

Land Pride Touch-up Paint

Part No.	Part Description
821-011C	PAINT LP BEIGE SPRAY CAN
821-032C	PAINT LP GLOSS BLACK SPRAY CAN

Lubrication

Lubrication Legend	Multi-purpose spray lube	Multi-purpose grease lube	Multi-purpose oil lube	50	Intervals in hours at which lubrication is required

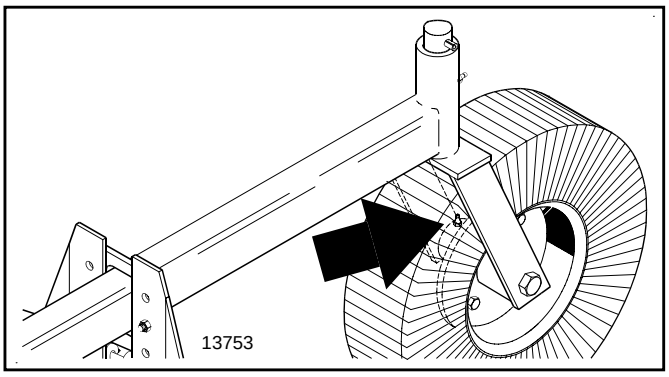


24 Hours

Tailwheel Spindle Tube

Type of Lubrication: Multi-purpose Grease

Quantity = 6 pumps



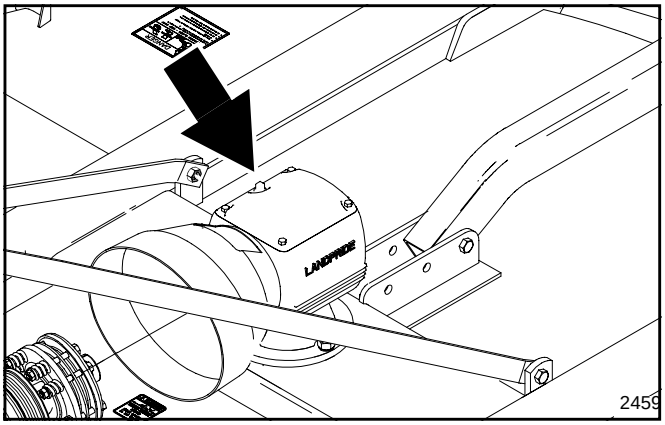
8 Hours

Tailwheel Hub

The tailwheel hub is equipped with a relief hole located directly opposite the grease fitting. The relief hole releases pressure from inside the hub casting when it is greased. The hub should be greased until grease purges from the relief hole.

Type of Lubrication: Multi-purpose Grease

Quantity = Until grease purges from the relief hole



8 Hours

Gearbox

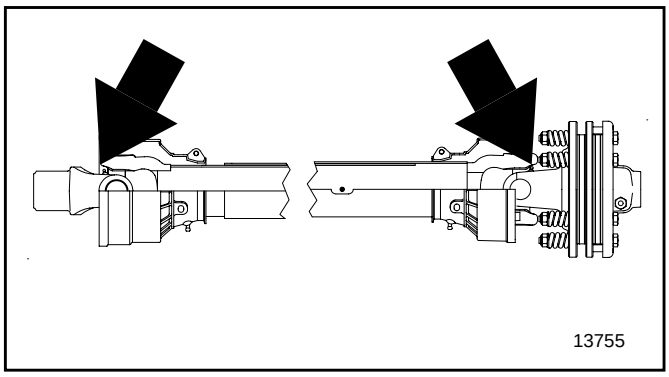
Oil expands when hot, therefore, always check oil level when cold. Unscrew top vent plug in gearbox to remove dipstick. Wipe oil from dipstick and screw it back in without tightening. Unscrew dipstick and check oil level mark. If low, fill through top plug hole in gearbox with gear lube until oil reaches full mark on the dipstick. Reinstall vent plug with dipstick and tighten.

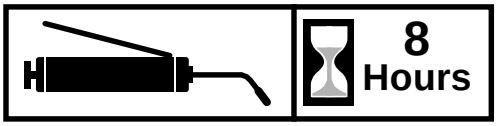
NOTE: Do not overfill! Cutter should be level when checking oil. Oil should be cool not hot.

Type of Lubrication: 80-90W EP Gear Lube

Quantity = Fill until oil reaches full mark on dipstick.

NOTE: The cutter is equipped with an air vent plug with dipstick. Some cutters are shipped with vent plug strapped to the brace bar and others are shipped with vent plug installed in the gearbox. Please see your dealer if you did not receive a vent plug with dipstick.

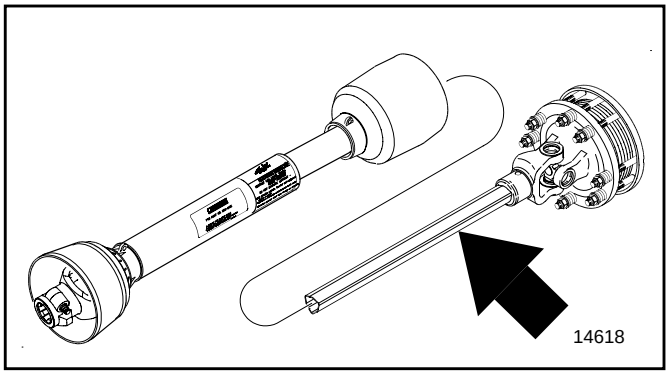


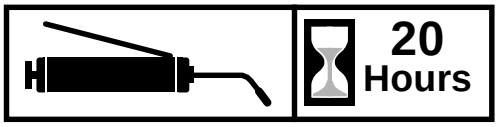


Driveline U-Joints

Type of Lubrication: Multi-purpose Grease

Quantity = 6 pumps

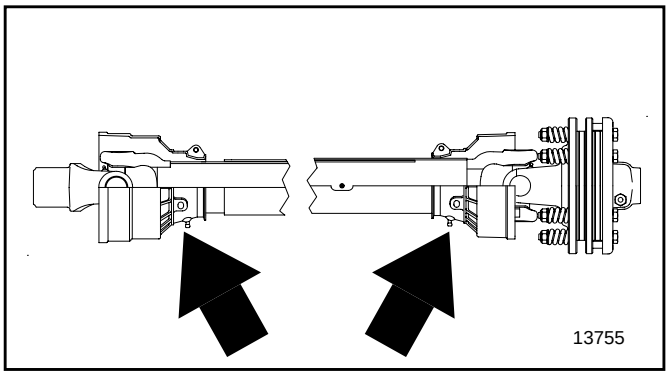


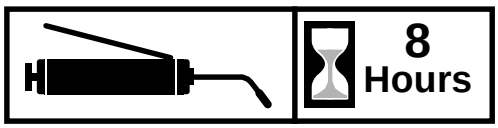


Driveline

Type of Lubrication: Multi-purpose Grease

Quantity = Clean & coat inner tube of driveline with a light film of grease and then reassemble.





Inner Tube Bearing

Type of Lubrication: Multi-purpose Grease

Quantity = As required

RCR2684 Model	
	RCR2684
Cutting Width	84”
Overall Width	90 3/4”
Overall Length (Including Tailwheel)	Single Tailwheel 133” Dual Tailwheel 116”
Blade Tip Speed	540 RPM PTO: 14,369 FPM / 163 MPH
Machine Weight	Single Tailwheel 1370# Dual Tailwheel 1500#
Driveline	ASAE Category 4
Slip Protection	4 Plate Slip Clutch
Recommended Tractor HP	60 to 110 HP
PTO Speed	540 rpm
Gearbox	540 RPM PTO Driven 1 3/8” 6-Spline Input Shaft Beveled Gears in Cast Iron Housing
Gearbox Lubrication	80-90W EP Gear Lube
Gear box Output Shaft Diameter	2”
Cutting Height	2” - 12”
Deck Material Thickness	10 Gauge
Side Panel Thickness	1/4”
Deck Height	10 1/8” Bottom of deck to bottom of skid.
Deck Construction	All Welded
Skids	Replaceable
Tailwheel Mount Assembly	Welded Arm and Caster Fork.
Tailwheel(s)	Provided with single or dual tailwheels. 4.00 x 8 x 15 1/4 Laminated Tire(s) with Cast Iron Hub and Tapered Roller Bearings.
Hitch	Category II or Category III Quick Hitch
Stump Jumper	Oval Pan 3/16” x 24” x 38”
Blades (2)	1/2” x 4" x 31” Heat Treated Alloy Steel Free-Swinging High Suction Blades
Blade Bolts	Keyed with Harden Flat Washer and Lock Nut
Blade Cutting Capacity	2”
Optional Front Guard	Chain guard - Standard Rubber guard - Available through parts department.
Optional Rear Guard	Chain guard - Standard

RCR2684 Model

Features	Benefits
Surpassed rugged industry standards	All Land Pride Cutters have been designed and tested and meet rigorous voluntary testing procedures specified by ANSI.
Tractor HP Range	60-110 HP.
5 Year gearbox warranty	A rugged heavy built gearbox capable of handling heavy cutting applications. Shows Land Pride's confidence in gearbox integrity.
Cat. 4 driveline with 4 plate slip-clutch	Excellent gearbox protection with the slip-clutch slipping when encountering obstruction in the blade path. Standard slip-clutch offers convenience over shear-bolts.
Cat. II or III Hitch Quick Hitch Capability	Permits deck to follow the terrain for an even cut. Quick Hitch provides for fast hook-up.
Lower clevis type 3-point hitch	Allows for ease of hook-up to tractor. Also adds additional strength allowing for an even pull from the tractor's lower arms, vs. pulling on a single pin design.
84" Cutting width	Wide cutting width, Reduces cutting time in the field.
Heavy 10 gauge deck construction	Can withstand more abuse than lighter gauge decks.
1/4" Side panels for overall reinforcement	Also protects sides from debris being thrown against them from the blades.
Fully welded deck	Robotically welded. Adds additional strength and deck integrity.
Round back design	Allows for more efficient handling and dispersing of material.
10 1/8" Deck Height	Allows cutter to handle heavy cutting conditions.
2" to 12" Cutting height	Provides for a wide range of cutting conditions.
Full length skids with replaceable shoes	Full length skids protect side plate structure, replaceable shoes for convenience.
1/2" x 4" Heat-treated free swinging blades	Free swinging protects from obstructions. Heat-treated offers longer life.
Splined blade bar	Allows for tight positive fit of stump jumper and blade bar to gearbox output shaft.
3/16" Oval stump jumper	Standard stump jumper aids in sliding over obstructions, which helps protect gearbox output shaft.
High blade tip speed	Ensures clean cut. (14,369 fpm)
2" Diameter cutting capacity	Can aid in clearing brush.
Available with single or dual tailwheels	Dual tailwheels offer greater stability in uneven terrain.
15" Rugged Laminated tailwheel	Laminated material is long lasting in rough conditions. Can't go flat.
Chain or rubber shield option	Located on front and rear. Reduces flying debris.

Problem	Cause	Solution
Oil seal leaking	Gearbox overfilled	Drain to side plug hole.
	Seals damaged	Replace seals
	Grass or wire wrapped on shaft in seal area	check seal areas daily
Driveline yoke or cross failing	Shock load	Avoid hitting solid objects
	Needs lubrication	Lubricate every 8 hours.
Driveline clutch slipping	Scalping the ground	Raise cutting height
	Cutting too fast	Reduce travel speed
	PTO being engaged too fast at high engine rpm	Slowly engage PTO at low engine rpm
	Cutting over solid objects	Avoid solid objects
Bent Driveline (NOTE: driveline should be repaired or replaced if bent)	Contacting frame	Reduce lift height in transport position
	Contacting drawbar	Reposition drawbar
	Bottoming out	Shorten driveline
Driveline telescoping tube failing	Shock load	Avoid hitting solid objects
Driveline telescoping tube wearing	Needs lubrication	Lubricate every 20 hours
Blades wearing excessively	Cutting on sandy ground	Raise cutting height
	Contacting ground frequently	Raise cutting height
Blades breaking	Hitting solid objects	Avoid hitting solid objects
	Blades hitting each other	Blade carriers need to be timed
Blades coming loose	Blades not tightened properly	Tighten blade hardware (refer to “Cutter Blade” on page 24.)
	Improper deck attitude	Lower front of deck, see page 14.
Blade carrier becomes loose	Running loose in the past	Replace gearbox output shaft and blade carrier
	Blade carrier hardware not tight	Tighten to specified torque
Blade bolt holes worn	Blade hardware running loose	Replace blades and blade bolts if worn
Blade carrier bent	Hitting solid objects	Avoid hitting solid objects and replace blade carrier
Excessive side skid wear	Cutting height not level	Adjust cutter height
	Soil abrasive	Adjust cutter height
	Cutting too low	Adjust cutter height
Tail wheel support failing	Lowering too fast	Adjust rate of drop
	Hitting objects when turning	Reduce speed on turns
Excessive vibration	Driveline bent	Replace driveline
	Blades loose	Tighten blade bolts
	Blade carrier bent	Replace blade carrier
	Blade broken	Replace blade
	Blade will not swing	Remove and inspect blade
	Blades have unequal weight	Replace both blades

Torque Values Chart for Common Bolt Sizes

Bolt Size (Inches)	Bolt Head Identification Grade 2		Grade 5		Grade 8	
in-tpi[1]	N · m[2]	ft-lb[3]	N · m	ft-lb	N · m	ft-lb
1/4" - 20	7.4	5.6	11	8	16	12
1/4" - 28	8.5	6	13	10	18	14
5/16" - 18	15	11	24	17	33	25
5/16" - 24	17	13	26	19	37	27
3/8" - 16	27	20	42	31	59	44
3/8" - 24	31	22	47	35	67	49
7/16" - 14	43	32	67	49	95	70
7/16" - 20	49	36	75	55	105	78
1/2" - 13	66	49	105	76	145	105
1/2" - 20	75	55	115	85	165	120
9/16" - 12	95	70	150	110	210	155
9/16" - 18	105	79	165	120	235	170
5/8" - 11	130	97	205	150	285	210
5/8" - 18	150	110	230	170	325	240
3/4" - 10	235	170	360	265	510	375
3/4" - 16	260	190	405	295	570	420
7/8" - 9	225	165	585	430	820	605
7/8" - 14	250	185	640	475	905	670
1" - 8	340	250	875	645	1230	910
1" - 12	370	275	955	705	1350	995
1-1/8" - 7	480	355	1080	795	1750	1290
1 1/8" - 12	540	395	1210	890	1960	1440
1 1/4" - 7	680	500	1520	1120	2460	1820
1 1/4" - 12	750	555	1680	1240	2730	2010
1 3/8" - 6	890	655	1990	1470	3230	2380
1 3/8" - 12	1010	745	2270	1670	3680	2710
1 1/2" - 6	1180	870	2640	1950	4290	3160
1 1/2" - 12	1330	980	2970	2190	4820	3560

Bolt Size (Metric)	Bolt Head Identification 5.8 Class 5.8		8.8 Class 8.8		10.9 Class 10.9	
mm x pitch[4]	N · m	ft-lb	N · m	ft-lb	N · m	ft-lb
M 5 X 0.8	4	3	6	5	9	7
M 6 X 1	7	5	11	8	15	11
M 8 X 1.25	17	12	26	19	36	27
M 8 X 1	18	13	28	21	39	29
M10 X 1.5	33	24	52	39	72	53
M10 X 0.75	39	29	61	45	85	62
M12 X 1.75	58	42	91	67	125	93
M12 X 1.5	60	44	95	70	130	97
M12 X 1	90	66	105	77	145	105
M14 X 2	92	68	145	105	200	150
M14 X 1.5	99	73	155	115	l215	160
M16 X 2	145	105	225	165	315	230
M16 X 1.5	155	115	240	180	335	245
M18 X 2.5	195	145	310	230	405	300
M18 X 1.5	220	165	350	260	485	355
M20 X 2.5	280	205	440	325	610	450
M20 X 1.5	310	230	650	480	900	665
M24 X 3	480	355	760	560	1050	780
M24 X 2	525	390	830	610	1150	845
M30 X 3.5	960	705	1510	1120	2100	1550
M30 X 2	1060	785	1680	1240	2320	1710
M36 X 3.5	1730	1270	2650	1950	3660	2700
M36 X 2	1880	1380	2960	2190	4100	3220

[1] in-tpi = nominal thread diameter in inches-threads per inch

[2] N· m = newton-meters

[3] ft-lb= foot pounds

[4] mm x pitch = nominal thread diameter in millimeters x thread pitch

Torque tolerance + 0%, -15% of torquing values. Unless otherwise specified use torque values listed above.

Additional Torque Values

Blade Bolt Lock Nut	450 ft-lbs
Blade Carrier Hub Nut	450 ft-lbs minimum

Warranty

Land Pride warrants to the original purchaser that this Land Pride product will be free from defects in material and workmanship beginning on the date of purchase by the end user according to the following schedule when used as intended and under normal service and conditions for personal use.

Overall Unit and Driveline: One year Parts and Labor

Gearbox: Five years Parts and Labor
Blades, Tires, and Driveline Friction Discs: Considered wear items

This Warranty is limited to the replacement of any defective part by Land Pride and the installation by the dealer of any such replacement part, and does not cover common wear items such as blades, belts, tines, etc. Land Pride reserves the right to inspect any equipment or parts which are claimed to have been defective in material or workmanship.

This Warranty does not apply to any part or product which in Land Pride's judgment shall have been misused or damaged by accident or lack of normal maintenance or care, or which has been repaired or altered in a way which adversely affects its performance or reliability, or which has been used for a purpose for which the product is not designed. Misuse also specifically includes failure to properly maintain oil levels, grease points, and driveline shafts.

Claims under this Warranty must be made to the dealer which originally sold the product and all warranty adjustments must be made through such dealer. Land Pride reserves the right to make changes in materials or design of the product at any time without notice.

This Warranty shall not be interpreted to render Land Pride liable for damages of any kind, direct, consequential, or contingent to property. Furthermore, Land Pride shall not be liable for damages resulting from any cause beyond its reasonable control. This Warranty does not extend to loss of crops, any expense or loss for labor, supplies, rental machinery or for any other reason.

No other warranty of any kind whatsoever, express or implied, is made with respect to this sale; and all implied warranties of merchantability and fitness for a particular purpose which exceed the obligations set forth in this written warranty are hereby disclaimed and excluded from this sale.

This Warranty is not valid unless registered with Land Pride within 30 days from the date of purchase by the end user.

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